Navigating the Tenure Track:

A Handbook for the Scientific Staff

Woods Hole Oceanographic Institution

December, 2001

NAVIGATING THE TENURE TRACK

Table of Contents

INTRODUCTION **1**

1. THE TENURE REVIEW PROCESS **3**

A. Assistant Scientist Appointment 3
B. Promotion to Associate Scientist Without Tenure 4
C. Promotion to Associate Scientist With Tenure 6
D. Contents of your Promotion File 7
E. Stopping The Clock 9

2. RELATIONSHIP WITH YOUR DEPARTMENT **10**

3. THE MENTOR/MENTEE RELATIONSHIP **11**

A. Overview 11
B. Role Of A Mentor 12
C. Your Role 12
D. Topics To Discuss With Your Mentor 12

4. INVOLVEMENT IN EDUCATION **14**

A. Undergraduate Programs 15
B. Graduate Programs 15
C. Postdoctoral Scholar Program And Other Postdoctoral Opportunities 17

5. FUNDING **18**

A. Proposal Preparation 18
B. Institution Funding Resources 19
C. Bridge Support 20
D. Project Monitoring 21
E. Project Reporting 21

6. NETWORKING **21**

7. COMMITTEE SERVICE, OUTREACH, PARTICIPATION IN OTHER NON-RESEARCH ACTIVITIES, AND CONSULTING **22**

8. RESOURCES **24**

INTRODUCTION

In 2000, at the request of a group of senior female scientists at the Institution, the Director set up a committee "to assess the status and equitable treatment" of women on the Scientific Staff at WHOI. The resulting Gender Equity Review Committee's Report was delivered to the Director in March of 2000. After soliciting and receiving additional input from the WHOI community, the Director issued a formal response to the Report in February 2001, incorporating strategies and action items for each of the recommendations.

One of the recommendations related to mentoring and as a consequence, one of the resulting action items was to develop a handbook that would provide guidance to junior staff members on a wide range of topics relating to career development. A key ingredient for the success of both women and men is to have the best information possible when making decisions that impact their careers. It is recognized that the Institution has formal policies dictating the review process at each appointment and promotion level of the Scientific Staff. In addition to those policies, as in any institution or organization, there are common, but not uniform, practices that are important to understand in order to most effectively navigate through one's career.

Navigating the Tenure Track is designed to provide guidance concerning those unwritten, informal practices. Because these practices are not policies and are not uniformly followed, observations of what frequently occurs can be helpful to junior staff members. In preparing this document, an initial draft was written and then sent to several reviewers for editing and comment. The five scientific departments and the Marine Policy Center were represented in the group of individuals reviewing the draft and all the individuals involved have experience with the processes, both personally and, in several instances, from an administrative perspective. Their input and editorial comments were critical to the process of developing this handbook.

Specifically, in addition to editing the final draft, Claire Reid and Judy McDowell initially drafted the sections dealing with *Funding* and *Involvement in Education*, respectively. Extensive editing of the initial draft document was performed by Mike Bacon, Amy Bower, Bill Curry, Becky Gast, Mark Hahn, Di Jin, Sonya Legg, Britt Raubenheimer, Debbie Smith, Meg Tivey, John Trowbridge, and Wenlu Zhu. Without all of their thoughtful, careful edits, it would have been impossible to bring this handbook to fruition. Their efforts are truly appreciated.

This handbook is not intended to and does not in any way change the policies that exist. The starting point for anyone who seeks to understand WHOI's tenure and promotion processes is the policies themselves, primarily as set forth in the Appointment and Promotion Procedures Handbook, also known as the "Blue Book" (so called because, prior to having an electronic version, for at least 25 years the contents were bound in a blue covered booklet). For example, references to term and tenure appointments and the promotion processes are more fully described in the Appointment and Promotion Procedures Handbook and that information is not reiterated herein.

Instead, this document is intended to provide information on how the processes typically unfold, to suggest approaches to the wide variety of options faced by junior staff and to aid in career development. In addition, because practices are unwritten and are the product of individual experiences, they inevitably vary from department to department and situation to situation. Therefore, this handbook is not intended to be a commitment by the Institution concerning how the appointment and promotion processes will unfold in any individual case. Nevertheless, just

as word-of-mouth information and advice can be helpful in general, even if differences occur in individual situations, the goal of this handbook is to provide information and advice that may not be apparent from the policies themselves.

Our goal is to amend and/or revise this handbook as new or additional topics are identified or as individuals have different or additional observations. Do not hesitate to contact me or one of the other resource people listed in section 8 if there is an area you feel needs expansion, further explanation or revision.

Karen P. Rauss
Ombuds/EEO Officer
December, 2001

1. THE TENURE REVIEW PROCESS

All appointments to the Scientific Staff are either for a specific, limited period of time (term appointments) or for an indefinite time period (with Tenure). What does tenure mean at WHOI? "The transition from a term appointment to tenure implies a significant commitment by the Institution to support the candidate's position and his/her research. Tenure assures a continual appointment on the Resident Scientific Staff until retirement, except in limited situations as determined by the Institution (e.g., serious personal misconduct, serious disregard of duties or serious Institution financial exigency). Tenure symbolizes the Institution's confidence in the person's professional qualities and scientific judgment …"[1]

The steps taken to arrive at the point of evaluation for tenure typically involve appointment as an Assistant Scientist and promotion to Associate Scientist without Tenure. The technical requirements and processes for these appointments are covered thoroughly in the Appointments and Promotions Handbook (accessible under the Director of Research's web page at *http://www.whoi.edu/DoR/staffing/appointments-promotions* so they will not be repeated here.

To put the tenure decision into context, however, does require a brief discussion of these two junior appointment/promotion processes and some general advice on preparing for them. One common component to any appointment or promotion on the Scientific Staff at WHOI is the review process that includes both internal and external reviewers. While the number and depth of reviews increase as you go up the ladder, the basic process remains very similar at each step.

A. ASSISTANT SCIENTIST APPOINTMENT

Once a department identifies a candidate, recommendations are solicited from scientists at other research institutions and universities who are experts in various aspects of the candidate's field and/or who are familiar with the candidate's research and scientific career. These outside reviewers are asked to comment on the candidate's scientific accomplishments thus far and the individual's potential for the future. In addition, they are asked to consider whether the candidate has chosen significant research questions and exercised good judgment and discrimination in the interpretation of results; how the candidate's research compares with that of others at a similar level of experience working in the same or related fields; and whether the reviewer would recommend the candidate for a similar appointment at his/her home institution.

Depending on the level of support expressed in the external and internal reviews, the file may be taken forward to the Appointment and Promotions Council (APC) by the Department Chair. APC has seven standing voting members (the five Department Chairs, the Associate Director for Education/Dean, and the Director of Research) and two non-voting members (the Equal Employment Opportunity [EEO] Officer and the Director). When the appointment or promotion is in the Marine Policy Center, the Center Director is an eighth voting member. In addition, the other three Associate Directors may participate in the deliberations but are non-voting. APC considers and discusses the appointment from an Institutional perspective to maintain consistency of standards across departments regarding the quality of research and future potential. Following the discussion, the voting members formally vote on the appointment,

[1] Appointment and Promotion Procedures for the Scientific and Technical Staffs and Departmental Assistants, *http://www.whoi.edu/administration/dirres/overview/bluebook/assoc_scientist_tenure.html*

which constitutes their recommendation to the Director, who then makes the final decision. The file is forwarded to the Executive Committee of the Board of Trustees (Exec Comm) to inform them of the appointment.

An Assistant Scientist appointment is typically for four years (see below on Stopping the Clock for possible exceptions). Once you are an Assistant Scientist, the Department Chair and members of the Scientific Staff most familiar with your research will evaluate your progress after the first and second years of your appointment. The results of this review are communicated to you verbally and in writing, with a copy to the Director of Research. If you have any questions or concerns about this communication, you should not hesitate to discuss those concerns with someone. Ideally the person to whom you go for advice will be the Department Chair, but if you feel more comfortable talking with some other senior person in your department, that is also perfectly acceptable. The important thing is to clarify any points you do not understand. It is far easier to make adjustments in your research efforts at this stage, if necessary, than to try to do so as your appointment nears its end.

For the next two promotions on the ladder (to Associate Scientist without Tenure and Associate Scientist with Tenure), if at any point in the promotion process the Department determines it should not proceed with a promotion, the Chair of the department will consult with the Director of Research and then discuss the issues with the candidate. The candidate may elect either to withdraw the file or elect to have the process completed.

B. PROMOTION TO ASSOCIATE SCIENTIST WITHOUT TENURE

At least six months before the end of the four-year Assistant Scientist appointment, after consulting the Associate and Senior Scientists in the department, the Chair will initiate the promotion process to Associate Scientist without tenure. The Chair will discuss the overall results of the Department's deliberations with you. If the Department and/or you desire to proceed with preparation of the file, you will be asked to provide a current CV, a research statement, the names of individuals (typically 6 to 8) familiar with your research, and to consent to the solicitation of confidential opinions about your work. When providing names of suggested referees, bear in mind that you can include collaborators. If you have personal or professional reasons for not wanting certain scientists involved in your promotion process, you can also request that those individuals not be asked for letters.

The Chair will discuss with you potential scientists from other departments at WHOI to chair the ad hoc review committee. This committee also will include two to four members of the department familiar with your work and the Department Chair in an ex officio role. The Chair of the ad hoc committee cannot be a collaborator with the candidate and typically is a tenured Staff member.

The ad hoc committee solicits input by interviewing all Associate and Senior Scientists from your department and, if appropriate, Associate and Senior Scientists from other departments who are familiar with your work. In addition, at least six outside reviewers are asked to comment in writing on your ability to formulate and carry out significant independent research. Contributions to the Institution's education program and participation in other scientific activities are also evaluated.

The reviewers are asked if you have chosen significant research questions; demonstrated independence and originality in performing research; exercised good judgment and discrimination in the interpretation of the results; effectively communicated the results to the judgment of others through lectures, publications and papers; and exhibited professional judgment and leadership in collaborative interactions. Reviewers also are asked to compare your research to that of others with similar experience who are working in the same or allied fields. They are asked if your research has influenced others in the field and if you are considered a leader or potential leader in your chosen area of research. They also are asked whether they would recommend you for a similar appointment at their institution.

Since everyone's field of research is different, documentation of productivity and impact also may be different. As a consequence, it is difficult to describe exactly what you should have accomplished at this point in your career. But in general, it is expected that you will have research results that are clearly attributable to you and that have had impact on the field. Since this is not a tenure appointment, the impact may be less dramatic than what is expected four years hence, but it should be evident that the work has grown well beyond (and perhaps in a totally different direction from) your PhD research, is independent from your PhD advisor and, although it perhaps involves collaboration with others, is clearly your own. This may be research that originated in collaboration with your postdoctoral advisor, but has evolved into work that is substantially your own. That is, the reviewer should be able to readily identify what part of the work is your intellectual output and what parts are attributable to others.

In addition, the Education Office will be asked to describe your contributions, if any, to the various educational programs at WHOI. The Institution's education programs are focused at the graduate level (mainly for doctoral degrees) and in supervising and mentoring undergraduates in gaining research experience (see section 4). While excellence in research is essential in order for teachers and advisors of students to be effective role models and educators, unlike most colleges and universities, participation in education activities at WHOI is strictly optional. However, if you do choose to participate, as with your research, your contributions to Education must be of the highest quality.

In addition to obtaining outside opinions, the ad hoc committee will interview all available members of the Scientific Staff in your department who are senior to you. If you have strong interdisciplinary collaborations at the Institution, the committee also may interview appropriate Scientific Staff in other departments. The committee will interview you, as well. You should be well prepared for this interview with the ad hoc committee, as it is often the final piece of information the committee receives prior to making its recommendation. Among other things, the committee is likely to ask you to describe what you have accomplished in your research and in your education efforts and what you intend to tackle in the future. It is important that you clearly articulate your scientific niche and/or interdisciplinary contributions, both at the Institution and in the broader scientific community.

Once the committee has completed its review, the chair of the ad hoc committee will write a recommendation regarding promotion. Together with the committee's recommendation, the outside letters, the letter from the Education Office, your CV, research statement and selected publications are incorporated into a final file, which goes to the Appointments and Promotion Council (APC). At APC, the Chair of the ad-hoc committee presents the file including the committee's recommendation, the Department Chair provides additional comments, APC discusses it and the voting members give their recommendation to the Director. The Director decides

whether or not to promote and will present the file along with his/her recommendation to the Executive Committee of the Board of Trustees for final action.

C. PROMOTION TO ASSOCIATE SCIENTIST WITH TENURE

The tenure process can occur at any time during an Associate Scientist's term of appointment, but generally occurs during the fourth or final year. It is the most important promotion for Scientific Staff at WHOI or faculty at any academic institution, as it carries with it the Institution's highest confidence in the individual's professional qualities and scientific judgment. At this point, impact on the field rather than promise of success is the primary criterion for promotion. As you progress up the ladder to tenure, the balance between promise of success and demonstrated accomplishment shifts towards accomplishment, and consequently, the opinions of the outside community become more important.

Midway in the four-year term of appointment as an Associate Scientist without Tenure, the Department Chair and members of the Scientific Staff most familiar with your research will evaluate your progress. The results of this review will be communicated to you verbally and in writing, with a copy to the Director of Research. Any questions or concerns about this review and/or its outcome should be discussed with someone such as your Department Chair or some other senior member of your department. As in the case of the first and second year Assistant Scientist reviews mentioned earlier, it is important to clarify any points you do not understand.

Approximately one year after the mid-term review (that is, approximately 12 months before the expiration of the Associate Scientist's term), a meeting of the tenured members of the department is held to discuss the promotion to Associate Scientist with Tenure. The Chair will discuss the results of the Department's deliberations with you and either the Department and/or you can decide to proceed with the promotion process. As with the promotion to Associate Scientist without Tenure, you will be asked to consent to the solicitation of confidential opinions about your work and to provide an updated CV and research statement as well as the names of individuals familiar with your research. Working from this list and with additional advice and guidance from the department tenured staff, the Chair composes a list of external reviewers who may write letters of reference or serve as members of an external ad hoc review committee.

The Department Chair assembles the file, which consists of your CV, research statement and selected publications, and circulates it to the outside reviewers, to all tenured members of the department and to tenured members of other departments who have worked closely with you. WHOI reviewers must contribute their written comments, if any, before they see the outside reviews.

Referees are asked if you have chosen significant research questions; demonstrated independence and originality in performing research; exercised good judgment and discrimination in the interpretation of the results; and exhibited professional judgment and leadership in collaborative interactions. They also are asked to compare your research to that of others with similar experience who are working in the same or allied fields; to describe how your research has influenced others in the field; and to state if the reviewer considers you to be a leader in your chosen areas of research, if you show promise for continued growth, and whether they would recommend tenure if you were being considered at their institution.

Once all the outside letters are received and incorporated, the tenured staff in the department meets with the Chair to discuss the file. They will vote to recommend tenure or not, and then the Department Chair will prepare a written memo to APC summarizing the case and recommending for or against tenure, stating reasons for both majority and dissenting opinions of the department members.

APC will discuss the file and vote on the promotion. The vote constitutes the Council's recommendation to the Director. After that discussion and vote, the Director will decide whether to proceed with the external ad hoc review committee. The external ad hoc committee consists of four to five scientists from other institutions who have not already written letters for this particular promotion. Committee members review the complete file and meet with the Director, Director of Research and Department Chair to discuss in depth your contributions and qualifications. The committee members are asked whether they would support tenure for you at their own institutions as well as whether they would recommend tenure at WHOI.

The Department Chair prepares a detailed written summary of the deliberations of the ad hoc and adds it to the file. The Director then reviews the entire file, makes his/her recommendation and presents it to the Executive Committee of the Board of Trustees for its decision, which is final and binding.

D. CONTENTS OF YOUR PROMOTION FILE

When putting your promotion file together, consider the following:

- Remember that a large number of people (at least 25, not counting those in your department who are senior to you!!) will be reading and evaluating your file and some of them will not be in your field of expertise (Department Chairs from the other departments, members of the Executive Committee of the Board of Trustees, etc.), so your research statement needs to be thorough, clear and understandable to a wide range of individuals. The best research statements outline a research strategy that is easily comprehensible and show how specific papers and contributions have supported the strategy. You also may wish to include a section about your participation in the Institution's Education programs and your plans for the future with regard to both research and education.

  In developing your research statement, it is perfectly acceptable to ask to see someone else's to get ideas on formatting, length, content, etc. The person you ask can always say no, but many are glad to help. It is also acceptable and recommended that you ask respected colleagues for comments on your research statement before you submit a final version.

- <u>Documentation</u>: Depending upon the type of research you are conducting, documentation can take several different forms. The most prevalent form, however, is peer-reviewed publications. Until you have tenure, it is strongly recommended that you publish most, if not all, of your papers in quality, peer-reviewed publications. Papers in non-refereed publications sometimes are required to meet obligations to funding agencies or to organizers of conferences to which you have been invited, but you should keep in mind that they will not earn you much credit toward tenure and that it is wise to minimize the time you spend on them. Time should be spent on

writing papers for a more general and/or lay audience *only* if doing so does not prevent you from writing up and submitting work to peer-reviewed journals. In essence, your tenure decision will be significantly impacted by your productivity in peer-reviewed journals, and much less so, if at all, by publications such as chapters for reference books or popular journals. (These contributions to the general literature, however, can be valuable in giving you exposure, and the articles can be useful when trying to recruit students.) If you are ever in doubt as to whether to spend time writing non-peer-reviewed articles, it is important to ask the advice of mentors within your department. Ultimately, it is up to you to determine whether or not time spent on non-peer-reviewed papers will negatively impact your production of high quality peer-reviewed papers. Once you have tenure, you will have more flexibility to contribute to the general or lay audience literature.

A related but different point that needs to be emphasized is that you will be evaluated on your productivity and the quality and impact of your peer reviewed publications, not on the proposals you have written. It is important to maintain the appropriate balance between publications and proposals. When time is short and there is a choice to be made, it is generally far more important to write and submit a paper than it is to submit another proposal. Should lack of funding become an issue, Bridge support is available and using it when necessary will not impact promotion decisions.

- Authorship: Single authorship vs. collaborations—these are always issues to balance carefully. Sole-authored papers are an obvious testament to your independent research, however, depending upon your line of research, collaboration may or may not be integral to your success. For example, collaborators may be essential to interdisciplinary or field observational science. First-authored publications, however, are the strongest indication of the role your scientific expertise and leadership played in the research. You should periodically review your CV with your mentor or Department Chair to be sure that you are achieving a good, productive balance appropriate to your field of research.

  Regarding Authorship—"The names of the authors, and the order in which they are listed, convey information about the relative contributions of collaborators. This should be discussed with all participants on a project. Guidelines for authorship should be reviewed at the outset and the contributions of all individuals involved in the project should be periodically assessed."[2] "Further, each author should review fully material that is to be presented in public forums or submitted (originally or in revision) for publication. Each author should be willing to support the general conclusions of the study."[3] Whatever the authorship order, issues concerning proper credit do arise in the conduct of research. Rarely do these issues rise to the level of Scientific Misconduct, but if they do, the Institution has as policy governing the process for dealing with them (*http://www.whoi.edu/administration/dirres/internal/Policies/misconduct.html*). More typical, however, is the need to determine fairly the order of authorship and the

[2] A Guide to Training and Mentoring in the Intramural Research Programs at NIH (*http://www1.od.nih.gov/oir/sourcebook/ethic-conduct/mentor-guide.htm#Communication*).
[3] Guidelines for the Conduct of Research in the Intramural Research Programs at NIH (*http://www.nih.gov/news/irnews/guidelines.htm*).

appropriate individuals/labs/agencies to acknowledge in the publication. Your Department Chair, your mentor or other senior colleagues are usually the most appropriate individuals to approach with authorship issues. Should this not be appropriate, there are additional offices and individuals at the Institution who may be of help in sorting out authorship questions or disputes. They include the Ombuds Office, among others. These resources are listed in the final section of this handbook.

- Keeping track of accomplishments: Each member of the Scientific Staff must complete an annual activity sheet. This is an excellent opportunity to review the past year and document your involvement in research, education and community service. It is also a good time to update your CV so you do not need to reconstruct several years worth of activities at promotion time. Your CV should include cruise and field work participation, committee service both within and outside the Institution, supervision of students or staff, courses taught, awards received, invited talks, etc.

- There are general guidelines for CV's, available on the web at *http://www.whoi.edu/administration/dirres/overview/bluebook/cvguideline.html*. It is a recommended format and may not be appropriate for everyone. If you have questions, you should contact your Department Administrator or other department resource for information about it.

- Community service (demonstration of leadership): When to serve and when to give a polite but firm no are covered under Section 7 of this handbook. If you have served the community through participation on committees, review panels, workshops, etc., this service should be included on your annual activity reports and CV.

E. STOPPING THE CLOCK

Situations can arise in one's personal life that demand a significant amount of time and emotional or physical energy to adjust to or overcome. Given the term appointments of four years, when such events occur in the life of an Assistant Scientist or an Associate Scientist without Tenure, the impact can be significant enough to impede scientific productivity and consequently, impact promotion. In order to give each individual the best chance for success, when these life-changing events take place, a request to extend the four-year term can be made. This option is available once in each of the two terms. Specifically the policy states, "When required to meet extenuating personal circumstances that could seriously inhibit professional productivity (e.g., disability of the employee, family illness requiring extended care, child rearing or bearing, or dependent parent care), with a timely written request via the Department Chair to the Director of Research, the term can be extended for up to 12 months. Using this option does not eliminate the possibility of a Staff member being considered for promotion at any time during the term of appointment."[4]

If you face a life-changing event such as those described in the policy above and wish to stop the clock (i.e., delay your promotion review by extending your appointment), you generally

[4] Appointment and Promotion Procedures for the Scientific and Technical Staffs and Departmental Assistants at *http://www.whoi.edu/administration/dirres/overview/bluebook/asst_scientist.html* and *http://www.whoi.edu/administration/dirres/overview/bluebook/assoc_scientist.html*.

should request the full twelve-month extension of appointment at or close to the time of the event. Don't wait until the term is nearly up and then decide you need time to complete some work—ask for the extension early and ask for the maximum extension. If you feel you don't need the extra time, you can have your file brought forward as originally planned or, with adequate notice, at any time during the period of extension. Having the extension extends the length of the term appointment and provides breathing space to be used if needed; it takes some of the pressure off and allows you to focus on the important personal issues being faced while minimizing the potential impact on your professional life.

A person who stops the clock can continue working full time, reduce hours, or take time off, as appropriate and necessary. Since this is a very personal and private decision, feel free to seek additional advice from any of the appropriate individuals listed in the resource section at the end of this handbook.

2. RELATIONSHIP WITH YOUR DEPARTMENT

Unlike department chairs at many colleges and universities, the chair of a scientific department at WHOI is typically appointed for only 4 years. While striving to maintain his/her scientific research program, the Chair is paid (currently seven months salary) to be the Chair of the department. The Chair is responsible for the overall health and quality of the department's research, educational programs and personnel. Therefore, junior scientists should never feel they are intruding on the Chair's time when they need guidance or advice. Providing such guidance is one of the Chair's primary responsibilities. In fact, it is in the best interest of both the junior staff member and the Chair to have a good working relationship.

As a new Scientific Staff member, you should arrange an appointment with the Chair shortly after arriving at WHOI to discuss thoroughly your research agenda and plans for both the immediate and long-range time frame. Although the Chair became familiar with your research when your appointment was being processed, unless she or he is conducting research in a closely related area, this may not be the person you see as your primary mentor. For a variety of reasons, however, it is important that the Chair knows and understands the research agenda and accomplishments of each member of the department. This knowledge assists the Chair in recommending others who may be more appropriate mentors, helps the Chair be more informed when it comes to performance evaluation and allows the Chair to provide constructive feedback to you on a regular basis. When the Chair steps down and returns to full-time research, this individual will remain in a position to influence your future.

It is also important to cultivate a good working relationship with the Department Administrator. This person often has experience with a number of different Chairs and other people such as the Associate Directors, staff in other departments, etc. and can be very helpful to all staff, but especially to junior staff, in learning the administrative ropes of the Institution. In addition, if the Department Administrator is familiar with your research agenda, you can feel more comfortable periodically requesting information on appropriate research opportunities.

<u>The department office is your first stop when you have questions about:</u>

- putting together budgets
- preparing and submitting proposals

- obtaining WHOI contribution numbers for publications
- obtaining information on accessing and interpreting Financial Status Reports (FSRs) used to manage your budget
- obtaining bridge support
- considering or requesting discretionary funds
- completing Bi-Weekly Time Reports (time cards)
- obtaining information on the promotion process
- using the expertise of Administrative Professionals in the department
- getting answers to a whole host of other questions from travel approvals and reimbursements to reserving conference/class rooms for meetings etc.
- obtaining the names of individuals well versed in particular activities such as cruise preparation, the education programs, etc.
- hiring Technical staff or making use of existing technical support personnel.

3. THE MENTOR/MENTEE RELATIONSHIP

A. OVERVIEW

Appropriate guidance from one or more senior individuals can be a critical element to success on the tenure track. Alternatively, failure to be engaged in a productive advisor/advisee relationship has been identified as a significant contributing factor in unsuccessful promotion cases. Therefore, all new Scientific Staff members are encouraged to search for and cultivate a relationship with at least one mentor, a more senior Staff member, typically but not necessarily in the same department as you are. Some departments may have set up systems for assigning mentors to incoming department members. If this is the case in your department, particularly if the designated mentor has an official role as your supervisor, be sure you are clear on who this person is and procedures for changing mentors, if you wish. You should also take responsibility for seeking out other advisors on your own. Multiple mentors can be very helpful.

You should consider whether to have your primary mentor be someone with whom you are actively collaborating. Advantages of working directly with your mentor might include more frequent interaction and the mentor having more familiarity with your work. The disadvantages might be that it may be more difficult to establish your own identity and demonstrate your scientific independence. Sometimes it is more useful to have career guidance from someone who doesn't have a vested interest in your research. These are issues to discuss with your Department Chair, as well as other trusted senior staff.

Leadership and mentoring are considered fundamental responsibilities of <u>all</u> tenured Staff. Effective mentoring and guidance of junior staff, postdocs and students are factors taken into account during annual performance reviews and in hiring and promotion decisions. To further emphasize this point, the description for Senior Scientist in the Appointment and Promotion Procedures book includes the following: "A Senior Scientist is responsible not only for initiating and conducting independent research, but is expected through example, leadership, influence and advice to promote the attainment of the highest professional and scientific standards within his/her department, the Institution and the field."[5] In particular, Department

[5] Appointment and Promotion Procedures for the Scientific and Technical Staffs and Departmental Assistants, *http://www.whoi.edu/administration/dirres/overview/bluebook/sen_scientist.html*.

Chairs are expected to demonstrate responsibility and leadership in the area of mentoring and guidance of all Staff, postdocs and students; and Educational Coordinators have similar responsibilities regarding postdoctoral scholars and students.

As departmental and Institutional leaders, tenured staff members have significant responsibility to promote an inclusive professional, intellectual climate within their sphere of influence. This arena includes both formal and informal meetings and functions. Senior staff set the tone of professional behavior through their actions. They should create an open, inclusive climate for all staff members and demonstrate appropriate behavior for junior staff who will be the leaders of the future. Harassment in any form is unacceptable behavior at the Institution. Every effort must be made to be certain that discriminatory behaviors and harassment are clearly and unambiguously identified as inappropriate and unacceptable. Institution policies relating to these issues are found at *http://www.whoi.edu/services/HR/ppp/100.htm* and *http://www.whoi.edu/services/HR/ppp/102.htm*.

B. ROLE OF A MENTOR

A mentor helps a junior person achieve excellence and acts as a career development advisor. The mentor should be able and willing to spend time with you. This should include some or all of the following: visits, phoning, email contact, lunch meetings as well as taking time to read proposals and papers, ask questions, review progress, and provide both positive and critical feedback to you. The mentor should help establish other contacts for you and assist you within the department with regard to space, funding and other resources. The mentor should also promote you in appropriate departmental or Institutional venues.

C. YOUR ROLE

You may have one or more individuals from whom advice and guidance is sought. You are responsible for seeking out those people you believe can be of most help to you, asking questions, accepting criticism and feedback when offered, and acknowledging the assistance provided by senior people. At the same time, you should develop an independent identity from your mentor(s) and, while they may share scientific interests with you, you should stretch your development beyond the interests of any of your mentors.

If you need assistance in identifying possible mentors, it is perfectly acceptable to read through the CV's and biosketches of some senior researchers to learn different professional career paths (e.g., education, professional experience, productivity [papers per year], types of research projects, sources of funding, etc.) and then to contact them to discuss their backgrounds and the choices they made.

D. TOPICS TO DISCUSS WITH YOUR MENTOR

Although each relationship between mentor and mentee is unique and some people seek or want more guidance than others, there are some fundamental topics and areas of discussion that should be covered. These include:

Long-Range Goals:

- Developing a long-range vision of your career in research and education.

- Planning your scientific goals during each of your first three to four years. Your mentor should consider how to facilitate this.
- Discussing the department's typical or general criteria for promotion and tenure; explaining the formal process for promotion/tenure; discussing any flexibility that exists in the promotion/tenure schedule; being aware that there is no one rigid set of requirements for junior staff, but there are acceptable ranges of performance in various categories (e.g., publications, presentations at conferences, funding status, involvement in education through advising students or teaching, local and national committee participation). Note that there are numerous sources for this information and your mentor is just one of them.
- Keeping other senior staff apprised of your progress is the responsibility of both of you, mentor and mentee. You should discuss the various means of promoting your career within and outside of the department and the Institution, considering visibility and appropriate self-promotion as well as the role to be taken by your mentor in promoting your progress and expertise.
- Developing many options for the future. Although the goal of your mentor is clearly to help you succeed professionally and, hopefully, at WHOI, from the beginning you should consider and discuss contingency plans in the event your career path takes you elsewhere.

Short-Term Goals:

- Orienting you to the lab, department, Institution and community, including information about relevant seminars, discussion groups, departmental meetings and email lists.
- Sorting out priorities such as budgeting time, writing proposals and publications, educational involvement, committee participation, conference attendance, participating on review panels, editing journals, setting up lab or field programs, etc.
- Assisting you with your startup funds request by making suggestions for equipment and services you are likely to need. Various organizations and departments have differing amounts of shared facilities, so it is difficult to know what equipment will be needed when coming from the outside.
- Helping you develop a plan for funding for the first two to three years at WHOI. Preferably this will be done prior to arrival so that you know how your research will be funded and you can get an early start on writing proposals. Many people arrive with no experience writing proposals and no clear idea of how their research will be supported until their proposals are successful.
- Together with your Department Chair, providing opportunities for you to meet and interact with various agency Program Managers.
- Discussing how to deal with issues such as lab safety, space, staff support, obtaining ship time, introduction to colleagues, identification of other possible mentors for you, access to agencies and program managers, funding opportunities (including both external sources and the internal sources of bid and proposal support, Assistant Scientist support, bridge support, discretionary funds and internal awards such as

Green Technology, Independent Study, Interdisciplinary, Institute, etc.) and self promotion, etc.

- Introducing you to the education program. Outline the workings of the Joint Program, routes to becoming involved in teaching, advising, serving on committees, etc. Helping draw up a plan to gradually get involved in education if that is what you want. The Department's Educational Coordinator, the Associate Dean and the Dean also can be helpful with this topic.
- Providing positive and critical feedback on your achievements and informing colleagues of achievements. Helping you learn to deal with and learn from negative reviews and/or feedback on proposals, papers, etc.
- Helping you learn when and how to say no to certain demands on your time.
- Considering additional or alternative mentors. You should be advised to seek another mentor if your original mentor's personal or professional situation does not allow for sufficient contact or if there is incompatibility between the two of you. You should take the initiative in seeking another mentor for either of the above two reasons or if your mentor is clearly and consistently unavailable or uninterested in your progress, if your mentor consistently depresses you by undervaluing your abilities or accomplishments, or if your mentor displays any other signs of undermining the relationship. Contact your Department Chair for advice if this type of situation develops.

4. INVOLVEMENT IN EDUCATION

Woods Hole Oceanographic Institution offers many opportunities to be involved in educational activities at the undergraduate, graduate and postdoctoral levels. There are also opportunities to participate in educational programs outside of WHOI (ex. MBL/BUMP, Bridgewater State College, Cape Cod Community College, Massachusetts Maritime Academy, Sea Education Association [SEA], etc.). Involvement in any of these programs can be personally and professionally rewarding. Participation, however, is voluntary and given the effort and time commitments required, you should carefully consider the level of your involvement prior to tenure. Keep in mind that in many or most situations, students learn, gain experience and train to become scientists; you get work done that otherwise would not happen; and everyone enjoys the collaborative experience. Not every situation works out that way, however, and you need to be prepared to provide extra time and attention to a student when things don't progress exactly as planned.

This is an important subject to discuss with the Department Chair, the Director of Research, the Associate Director for Education/Dean, the Associate Dean, the Education Coordinator in your department and other colleagues (junior and senior) at the Institution. In addition, for more insight into the level of commitment involved in advising a student, whether undergraduate, graduate or postdoc, please refer to the Advisor's Handbook currently being developed by the Education Office. Note that there are formulas to determine the amount of salary support provided for advising, teaching and some types of education committee service. Information on how your salary may be covered should be obtained from the Education Office.

A. UNDERGRADUATE PROGRAMS

Summer Student Fellowships (SSF) are awarded to undergraduate students who have completed their junior or senior year at colleges or universities and who have an interest in the ocean sciences, oceanographic engineering, or marine policy. Fellowships are awarded to pursue an independent research project, chosen in conjunction with the SSF advisor, under the guidance of a member of the Scientific or Technical Staff. Through this program of Summer Fellowship grants, WHOI's aim is to give a promising group of science, engineering and mathematics students experience that will assist them in determining whether they wish to have careers studying the oceans.

Fellowships also are awarded to minority students who have completed at least two semesters of undergraduate study and are interested in the marine sciences, oceanographic engineering, or marine policy. Through this Minority Fellowship program, WHOI's aim is to provide promising students from underrepresented groups with a meaningful first-hand introduction to research in oceanography, oceanographic engineering, or marine policy. For minority fellowships, students must be enrolled in U.S. colleges or universities and be U.S. citizens or permanent residents of the United States. Eligible minority groups include African-American or Black; Asian-American; Chicano, Mexican-American, Puerto Rican or other Hispanic American; and Native American.

Opportunities for involvement in these undergraduate programs exist in the application, selection and review process, presenting a seminar for the summer students, or advising a student. For many untenured scientists, this can be an excellent foray into teaching and advising that does not involve the long-term, intense commitment of graduate student advising. To get more information on becoming involved in this program, contact the Undergraduate Summer Programs Coordinator, the person on the SSF review committee from your department, the Education Coordinator in your department or the Education Office.

B. GRADUATE PROGRAMS

A student pursuing a doctoral degree may be admitted to either the MIT/WHOI Joint Program (JP) or the Woods Hole Oceanographic Institution Degree Program, both of which require a student to invest a minimum of three years of study and research. Degrees of Doctor of Philosophy (Ph.D.) and Doctor of Science (Sc.D.) are offered in Oceanography and Applied Science and Engineering jointly by WHOI and MIT. The Master of Science (S.M.) degree is available primarily for students who enroll in Applied Ocean Sciences and Engineering (typically U.S. Naval Officer Program) as an interim degree for doctoral candidates or for those who have met the S.M. degree requirements and leave the program by personal choice, or for academic reasons.

Qualified students whose interests are not best served by the Joint Program may be admitted to a program of advanced study and research leading to a Ph.D. degree in oceanography awarded by the Woods Hole Oceanographic Institution alone. Students in either program may concentrate in one or more of the following disciplines: chemical oceanography; marine geology and geophysics; physical oceanography; biological oceanography; and oceanographic engineering.

Students admitted to the MIT/WHOI Joint Program have access to the faculty, staff and extensive physical facilities of both institutions. A faculty committee consisting of at least one faculty member from MIT, and at least one member of the Scientific Staff or other Educational Assembly member from WHOI, oversees each of the disciplines listed above. The joint MIT/ WHOI discipline committees are responsible for all major decisions regarding a student's academic progress from admissions to the final recommendation for a graduate degree. The Department Chair and the Dean jointly appoint WHOI members of these committees.

Separate informational handbooks exist for each of the five sub-disciplines and include detailed information on program objectives and curricula, guidance activities, and grading/ evaluation procedures. WHOI procedures follow MIT procedures as written in the MIT Graduate Education Manual and MIT Bulletin. Additional detail on the Joint Program, its governance, etc. can be found on the web at *http://www.whoi.edu/education/graduate/jp.html*.

Upon acceptance into the graduate program, each student is assigned an advisor(s) to assist in formulating a program of study. At this time, a student may already have specific ideas about a research topic to be pursued in graduate studies. Subsequently, the student will choose a thesis supervisor to counsel him/her as graduate research progresses and to serve as chair of the thesis committee. Advisor and thesis committee member selection is subject to the approval of the Joint Committee and takes into consideration quality of advising and research activities. There is flexibility in the program for adjusting student-advisor assignments as a student's research interest evolves. In some instances, an appropriate range of thesis expertise is not available among MIT and WHOI faculty/scientists and a scholar from another organization may become a member of a thesis committee with approval by the discipline Joint Committee.

Opportunities for involvement in the graduate programs are extensive and include serving on various committees (i.e. admissions, general exam, thesis, discipline Joint Committee, etc.), teaching all or part of a course or leading seminars, or advising a graduate student pre- or post-general exam. Involvement with graduate students also can be as simple as acting as an informal mentor to a student. These activities vary in level of time commitment and should be considered carefully, especially when you are pre-tenure.

In particular, choosing to become a student's primary thesis supervisor/advisor is an important decision for a staff member. It is the advisor's responsibility to assist the graduate student in developing a plan of study and research that will fulfill the requirements for a graduate degree. Having a student can be a very rewarding experience as the student develops independence and begins to develop his or her research program, but it does involve a serious commitment of time and energy. A student may be a great help in carrying out your research program, but JP students are far from just "worker bees". The advisor-student relationship can be great, difficult, or, given the years of hard work and sometimes intense interaction, both, depending on the situation and the individuals involved.

Participation in any of the activities related to graduate education is voluntary and the timing of when a staff member becomes involved varies among the disciplines. Depending upon the department, becoming involved in the graduate program as an Assistant Scientist may or may not be encouraged. Typically, an Assistant Scientist becomes involved informally or by serving on admissions or academic committees or perhaps by teaching part of a course together with other Scientific Staff members. In order to evaluate whether you should become involved or not, it is wise to seek advice from senior people. Remember that if you assume educational

responsibilities, you will be expected to execute those responsibilities in a highly professional and exemplary manner. Participation in educational activities is reviewed at each stage of a scientist's career. If it is done well, it will reflect well upon a candidate for promotion. If it is ineffective or poor, it will not only reflect badly on the Scientific Staff member, but will also do a great disservice to a promising student.

To advise a student you need to be prepared to raise a portion or all of the funds necessary to support the student and, prior to admission time, you should let the discipline joint committee know you have funds available. Some students are admitted with fellowship support and may choose to have you as an advisor with the approval of the Joint Program Committee for your discipline. There are other means for providing student support and you should discuss this issue with the Education Coordinator in your department, the Associate Dean or the Dean, prior to taking on the responsibility of advising a student. To teach a course you need to identify or develop a course that interests you and make your interest known. To get more information on opportunities for involvement, you should speak with the Educational Coordinator in your department, the Dean or Associate Dean, or a member of your discipline's joint committee.

C. POSTDOCTORAL SCHOLAR PROGRAM AND OTHER POSTDOCTORAL OPPORTUNITIES

Eighteen-month Postdoctoral Scholar awards are offered to recipients of recent doctorates in the fields of oceanography, chemistry, engineering, geology, geophysics, mathematics, meteorology, physics, and biology. The awards are designed to further the education and training of the applicant with primary emphasis placed on the individual's research promise. These awards carry special recognition at the Institution. Each recipient is encouraged to pursue his or her own research interests in association with a member of the Scientific Staff, who acts as sponsor and general advisor. As an advisor or sponsor, you are expected to provide office and laboratory space in close proximity to your lab, as well as additional funding for supplies, access to instrumentation and other items necessary for your collaborative research with the postdoc.

In addition to postdoctoral scholars, there are many postdoctoral investigators who are funded through grants and contracts and work on the research topic of that grant, with the project Principal Investigator (PI) as their advisor. There are also postdocs who have a WHOI sponsor and are resident here, but are funded by national competitive fellowships (e.g. the NOAA Climate and Global Change Fellowships).

Potential postdocs could come to your attention in a variety of ways: they might contact you directly and you can discuss areas of mutual interest; you might have funding through one of your grants to support a postdoc (in which case you would advertise for someone to fill that role or search for a suitable applicant in the pool generated during the annual postdoctoral scholar fellowship application and review period); or a postdoc might apply for an Institution, national or international fellowship. You also can become involved in a less formal way, discussing research ideas with postdocs, sharing your expertise and collaborating with them without being the official sponsor.

There are many benefits to working with a capable postdoc. They can provide expertise to a project which you do not have and can stimulate your research program. Working with a postdoc can accelerate progress on your research goals as they are more independent that an undergraduate or graduate student. From the postdoc's perspective, you are providing the necessary resources to launch a junior researcher's career. Again, however, there is a time

commitment and junior staff members should seek advice about when to become involved in sponsoring or hiring postdocs.

5. FUNDING

A. PROPOSAL PREPARATION

As a member of the Scientific Staff at WHOI, you are responsible for raising support for the majority of your salary, raising support for the salaries of your technical assistants, contributing to the support of the departmental administrative professionals, and obtaining sufficient funds for the execution of your research. This funding process begins with your research ideas. Writing proposals to federal and other funding agencies is a very important skill to develop and master. You should work with your mentor(s) to develop concise, effective presentations of your ideas.

The next step is to find a source of funds to which you can send your proposal. It can be very helpful to review the historical funding sources of your department and of researchers in the same field at other institutions. You may want to seek advice from more senior researchers about specific funding sources and choose particular Requests for Proposal (RFP's) based on the past experience of others in order to maximize your success rate.

You should get on the mailing lists (typically electronic) of all the federal and other programs that regularly have calls for proposals in your field (NSF, NOAA, ONR, NASA, DOE, etc.) Some departments post lists of upcoming proposal deadlines, although they may not be all-inclusive.

There are two electronic resources to help you. The first is a product that WHOI licenses called SPIN.Plus, which is composed of three modules:

1. The first module, SPIN, is an up-to-date listing of national and international government and private funding sources. It is the number one database of its kind and used by over 700 institutions worldwide.

2. The second module, GENIUS, is a searchable expertise profile system that currently contains faculty CV's and will be expanded in the near future to contain facilities and institutional profiles.

3. The third module, SMARTS, matches the profiles with the funding opportunities and delivers automatic daily updates.

This service ensures that investigators are kept current on funding opportunities, new and approaching deadlines, and sponsor updates. If you want to set up a GENIUS profile (it need not contain your entire CV) so that you receive an email message whenever a new opportunity that matches your profile is added to the database, you should call the Executive Assistant to the Director of Research for assistance and guidance. Even if you don't want to set up a profile and receive automatic email updates, you can go into the SPIN database on an as-needed basis and search for all funding sources that match your query.

A second source of funding information is the Community of Science (COS) database. This service is provided by the MBL/WHOI Library and is very similar to SPIN.Plus. For more information on funding sources and COS look at the Library web page *http://www.mblwhoilibrary.org/databases/#funding* or call the MBL/WHOI Library for assistance.

Once you begin writing a proposal, it may or may not be appropriate to touch base with the Program Manager responsible for that particular agency program. While the Program Manager cannot provide you with information about the chances of your particular proposal being funded, it can be helpful for him or her to know a little about your proposal, when you will be submitting it, cost estimates, etc. in order to consider how your proposed research may fit in to the funding agency's overall strategy.

It is also very important that you speak with your Department administrative staff – sooner rather than later. They will prepare a budget for your proposal, calculating proper salary and overhead costs. In addition they will help you with forms for the specific agency and assist with your CV, list of publications and Current & Pending Support statement. Often they can relieve you of the burden of formatting text and integrating graphics and captions. Many agencies have specific guidelines regarding typeface, size, page limits, etc. and your department Administrative Professionals can provide expert guidance and reduce the amount of time that you have to devote to these details (so you can go on to other important things).

If you are writing a new proposal (not a renewal), you must separately identify these efforts on your biweekly time cards under Bid and Proposal. Guidelines for charging Bid and Proposal time are described at *http://www.whoi.edu/administration/dirres/internal/Policies/bid_proposal.html*.

When submitting a proposal, remember: **DO NOT WAIT UNTIL THE LAST MINUTE!** Life provides enough stress without creating more. When there is a program deadline at a large funding agency such as NSF, you can be sure that there are also internal departmental and Institutional deadlines. During these times, all the systems, both electronic and human, at WHOI and at the agency, will be stretched to the breaking point. To get the attention you deserve, start early and complete your proposal ahead of the pack. The office of Grant and Contract Services is responsible for the Proposal Process, which is briefly described at *http://www.whoi.edu/administration/g_cs/propproc.html***.**

B. INSTITUTION FUNDING RESOURCES

In addition to seeking funding outside WHOI, there are a number of internal funding sources available. These include:

- *Assistant Scientist Endowed Support*—each second and third year Assistant Scientist will, on January 1, automatically receive funding support equivalent to two months of estimated salary (fully loaded with employee benefits and overhead) for that coming year. This support will be awarded twice, in the second year and again in the third year of the Assistant Scientist's term appointment, and will not exceed four months in total. The policy regarding this support is described on the Director of Research's Policies and Procedures web site at *http://www.whoi.edu/administration/dirres/internal/Policies/asstsci.html*.

- T*he Education Programs*—provide funding for advising, teaching and some committee service. The Education programs are described at *http://www.whoi.edu/education/*.

- *The Institute Programs*—provide funding to work on projects related to the specific themes of each Institute. The Institute programs vary from year to year, based on the current themes. See *http://www.whoi.edu/administration/dirres/funding/whoi_funding/institutes.html* for more information on these programs.

- *The Interdisciplinary Program*—provides funding for two or more scientists from different departments or disciplines to work together on a problem. Proposals for the Interdisciplinary Program are due on April 15 each year. See *http://www.whoi.edu/administration/dirres/funding/whoi_funding/ind_award.html*.

- *The Independent Study Program* – provides funds for scientists to work on projects that may not be funded by traditional funding sources. As with the Interdisciplinary Program, proposals for the Independent Study Program are due on April 15 each year. See *http://www.whoi.edu/administration/dirres/funding/whoi_funding/ind_award.html*.

- *The Green Innovative Technology Program*—provides funding for Technical and Scientific Staff to work on new technologies. The Green Innovative Technology program deadline is October 15. See *http://www.whoi.edu/administration/dirres/funding/whoi_funding/green.html*.
  Ad-hoc committees of scientists and senior technical staff, appointed by the Director of Research, review the proposals submitted to the Interdisciplinary, Independent Study and Green Innovative Technology Programs. The Director of Research selects members for these ad-hoc committees based on the subject areas of the proposals submitted to the particular program.

In addition to these formal funding programs, the Institution as well as each Scientific Department and the Marine Policy Center have some unrestricted funds that are designated for support of research. The largest fraction of these funds is used for cost sharing on proposals to external funding agencies. Small amounts of funds, however, may be available to support a specific need, such as travel to a meeting or a cruise of opportunity. If you think you have a justifiable need, you should not hesitate to speak directly with your Department Chair, Marine Policy Director or Department Administrator. Additional information is available at *http://www.whoi.edu/administration/dirres/internal/Policies/funds.html*.

C. BRIDGE SUPPORT

Sometimes it is not possible to raise all the funding needed through proposal writing. While it is important to write proposals and actively seek funding, it is equally important to engage in other activities that will lead to promotion (e.g., writing papers). Therefore the Institution provides money – "Bridge" support - to cover your salary when you are "between other funding". The first 3 months of bridge support in each calendar year come from the Institution's overhead budget. Should you need more than 3 months in a single calendar year,

funds are provided from the Institution's discretionary money. The policy and guidelines for bridge support are on the Director of Research web page at *http://www.whoi.edu/administration/dirres/internal/Policies/bridge_support.html*, however, the very best source of information is your Department Administrator or Department Chair. You should seek their advice **before** you are completely without funding and it is important to preserve some funds so that you can continue to be productive (e.g., funds for communications and copying and for salary and travel expenses to attend meetings.) (Note: use of Bridge support when necessary is not a factor considered at promotion time.)

D. PROJECT MONITORING

Once you have received funding, it is your responsibility to spend that funding wisely and in accordance with the regulations of the funding agency, and to insure that you complete the goals of the project without overspending the budget. The Institution provides some web-based tools to assist with this task: the Financial Status Reports (FSR) provide the current funds available for each of your projects and detailed information about the transactions that have occurred (*http://fsr2.whoi.edu/*) and the Purchase Order Query (*http://pro.whoi.edu/*) gives you detailed information about purchases and encumbrances (items on order). Your most important source of information is your Department Administrator and the department's staff of Administrative Professionals. They can provide you with government and WHOI rules and regulations, the required forms and backup needed for purchasing, travel, shipping and time reports, and expert advice on all the spending decisions that you will face. Do not hesitate to ask questions. Making changes after the fact is not an easy task with the auditors keeping a close watch on our spending practices, and such changes may require prior approval from the agency that awarded the funds.

E. PROJECT REPORTING

Most funding agencies will require that you provide financial and scientific and/or technical progress reports on your projects. Some will require periodic reports during the life of your grant and almost all will require a final report when it is complete. All financial reports are generated by the Controller's office. Grant and Contract Services compile other information. You are only responsible for the scientific or technical progress report. It is very important to complete reports on time in order to maintain a good working relationship with your program manager at the funding agency and with the people at WHOI who run interference for you with the funding agency. Keep in mind, however, that these progress reports usually are not peer reviewed, and you should consider this in deciding how much effort to expend on them. It is wise to consult with your program manager to be sure you understand the agency's expectations.

6. NETWORKING

As a member of the Scientific Staff, your primary responsibility is to develop and maintain a scholarly research program. Seeking advice from colleagues from both inside and outside the Institution is extremely important during the development of a research program. Colleagues can assist you in identifying potential funding sources and new funding opportunities; in developing new techniques or approaches to specific research problems; and in developing and reviewing planning letters, proposals and manuscripts. It is important to get to know colleagues inside and outside the department. As department members will evaluate you for progress and

promotions, it is very important that they have a familiarity with your research program, as well as your other professional activities. This familiarity should not be limited to just reviewing written material at the time of review or promotion, but should be based on a continuing dialogue about research ideas, projects and other aspects of disciplinary interests. Junior scientists need to convey that they are scholars with critical thinking and insights.

How do you get to know colleagues? Read their recent work so as to identify overlap with your research interests. Talk with them about potential collaboration, formal and informal. Organize lunch discussion meetings. Seek colleagues' advice about your work and future directions. Ask for assistance in preparing a talk for a large scientific meeting. Serve on departmental committees where you can further develop relationships with more senior colleagues.

You should talk to the Department Chair fairly frequently to get advice on professional choices (e.g., conferences, proposals, research themes, etc.) and to understand the criteria for favorable review and promotion within the department. The Chair will help you develop a strategy for attaining your next promotion. Timing is very important – for example, junior Staff members are often encouraged to delay embarking on instrument or technique development that requires a lot of time and that has significant risk of failure until after a promotion decision. The Chair should also be an important contact person if you feel you are having difficulty within the department or the Institution or with funding agencies. The Chair plays a very important role in monitoring the evaluation process and interpreting departmental input. You must keep the Chair informed of both accomplishments and difficulties so the Chair can assist you in making appropriate professional choices or seeking additional resources. The choices are ultimately yours to make. It is best to have all the information and advice you need before making them.

Colleagues outside the department (both within the Institution and at other institutions) are also important. Owing to the multidisciplinary aspect of oceanographic research, you may have potential collaborators or advisors outside of your department. You should seek out other colleagues who share a common research interest or who may be participating in the same cruise or field program. During the promotion process, the assessment of your national and international reputation is a critical element. Gaining such a reputation during a relatively short period of time requires careful planning and effort to increase the visibility of your work. Senior people can be very helpful in getting invitations to conferences or other opportunities. Publications, conference presentations, communication (including sending reprints) with colleagues at other institutions who are recognized leaders in your field are efforts that you should continue in order to increase visibility and establish a presence within the field.

You should also establish a rapport with your program manager(s). Busy as they are, it is important to share ideas for new proposals with them before committing a lot of time to proposal preparation; and, once funded, to briefly update them on the successes you are having with your research.

7. COMMITTEE SERVICE, OUTREACH, PARTICIPATION IN OTHER NON-RESEARCH ACTIVITIES, AND CONSULTING

Internal committee service can be an important way to meet and work with other colleagues and to begin to understand how the department and Institution function. You should make careful decisions about the time commitments a committee may require, especially if you are

untenured, as committee service will not count as heavily as scholarship, research or education in the promotion and tenure process. In particular, staff members from underrepresented groups often are asked to serve on numerous committees to provide balance and perspective. If you are being asked to participate on a committee or task force, you should weigh carefully the benefits versus the time commitments involved in these activities. Committees should not be avoided totally, however, because the interactions involved can help you gain different perspectives on your own research program. Such participation is also an excellent networking avenue that should not be overlooked. You should discuss with your Department Chair the value of participating on particular committees. It is often a good idea to take some time deciding whether or not to accept a committee assignment. Before accepting, ask about the likely time commitment (e.g., numbers of meetings, whether or not there will be writing or other assignments, etc.), and find out who else will be on the committee. Then weigh the pros and cons carefully, keeping in mind what you need to accomplish by promotion time, before accepting or declining the assignment.

Participation in **national and international committees, planning workshops, peer review panels and editorial boards** can be extremely valuable in increasing your visibility and establishing yourself as a potential leader in your field. Such involvement can begin to nurture the development of your leadership skills and broaden the roster of colleagues and potential reviewers of your promotion or tenure file. By participating you can help to impact future research directions and influence science policy. As with Department and Institution committees, however, the number of requests for participation in such activities can be overwhelming, especially to scientists from underrepresented groups. Decisions to participate must be weighed carefully on the basis of personal satisfaction and commitment and your long-term research goals. Care must be taken not to spend too much time on community work if it is at the expense of getting your scientific projects completed and the results published or documented.

Public outreach efforts and participation in Development activities also can be enjoyable and intellectually satisfying. Although these activities help to promote the Institution to the general public and prospective donors, they can, however, distract you from your primary focus since they involve both time and energy – the fact that they are *voluntary* needs to be kept in mind at all times. Again, such requests should be discussed thoroughly with senior colleagues or mentors to determine the advisability of devoting valuable time to these endeavors. Guidelines regarding the process used to determine who to ask to participate in outreach activities, how often, etc., are being drafted and will be found at
http://www.whoi.edu/administration/dirres/internal/development.html.

Learning to politely, but firmly, say "no" to some requests while enthusiastically accepting others takes time and experience. Don't hesitate to delay a response until you have had time to discuss the request with a more experienced senior colleague. On the other hand, if there is something in which you are interested and you haven't been approached regarding participation, don't hesitate to discuss the activity with your mentor or your Department Chair. If it is considered a good use of your time, volunteer to participate or have someone else suggest your name to the appropriate person.

Consulting opportunities sometimes arise for scientists, particularly with regard to engineering or environmental issues. These opportunities can enhance your science by making you aware of scientific problems of practical concern, or detract from it by diverting time and energy to activities with little scientific value and away from your primary focus. In addition,

there may be opportunities to teach classes at nearby colleges or universities or to serve on thesis committees at other academic institutions. The Institution has a policy regarding Conflict of Interest and Outside Professional Activities (*http://www.whoi.edu/administration/dirres/internal/Policies/coi_opa.html*) dealing with institutional and agency concerns. You should always discuss with your Department Chair any potential professional activities that are outside of your Institution responsibilities both to be assured that you are not in conflict with the policy and to be sure it is a good use of your time, especially pre-tenure. Any outside professional activity that will encompass more than 80 hours in a single calendar year, however, must have prior written authorization from the Department Chair and Director of Research.

8. RESOURCES

Individuals and Offices that may be of assistance to you, either professionally or personally are:

Within your Department:

- Department Chair
- Department Administrator
- Educational Coordinator
- Administrative Professionals
- Other Scientific Staff Members

Outside your Department:

- Director of Research—x 2515
- Vice President for Academic Programs—x 2200
- Associate Dean—x 2436
- Ombuds/EEO Officer—x 2645
- Human Resources—your Department's Human Resources Representative or x 2253
- Chairs, Educational Coordinators, Institute Directors and others
- Scientific Staff members in departments other than one's own
- Computer Information Services (CIS)—Help Desk x 2439
- Procurement—x 2371
- Grant and Contract Services (GCS)—x 2842
- Marine Operations—x 2277
- Shipping and Receiving—x 2412
- Graphic Services—x 2720
- Shop Services—x 2702
- Safety Office—x 2242