

# Research Scientist and Staff Scientist Career Paths at SLAC

## Introduction

Research Scientists and Staff Scientists conduct research, develop theories, and devise methods to apply scientific principles, theories and research in projects related to the overall mission of SLAC. Research projects include synchrotron radiation research, materials science, accelerator science, chemistry, life sciences, laser research, particle and particle astrophysics, and high energy physics. Staff scientists are intended to be career appointments at SLAC of individuals who are key elements of defining and pursuing the forefront scientific mission of the laboratory.

There are four levels in the career path for Staff Scientists, as indicated in Figure 1. All levels ordinarily require a Ph.D. or its equivalent in research skill and subject knowledge in the relevant scientific discipline and each level requires increasing professional achievement. All Staff Scientists are expected to advance the scientific mission of the laboratory and their performance is measured against the priorities and goals set out in the SLAC agenda. Starting at the Staff Scientist level, individuals may, with the approval of the responsible Associate Laboratory Director, be principal investigators on subtasks of DOE Field Task Proposals.

Associate Staff Scientists, Staff Scientists and Senior Staff Scientists are appointed at the Directorate level and advancement at these levels within the career series is guided by the Directorate-level Staff Scientist Promotion and Appointment Process as appropriate. Senior Staff Scientists are expected to assume positions of scientific and management leadership within a Directorate and, assuming a continuing high level of performance aligned with the ongoing scientific mission of the Directorate, are envisaged to be a major component of the ongoing Directorate scientific program as long as it remains funded at the laboratory.

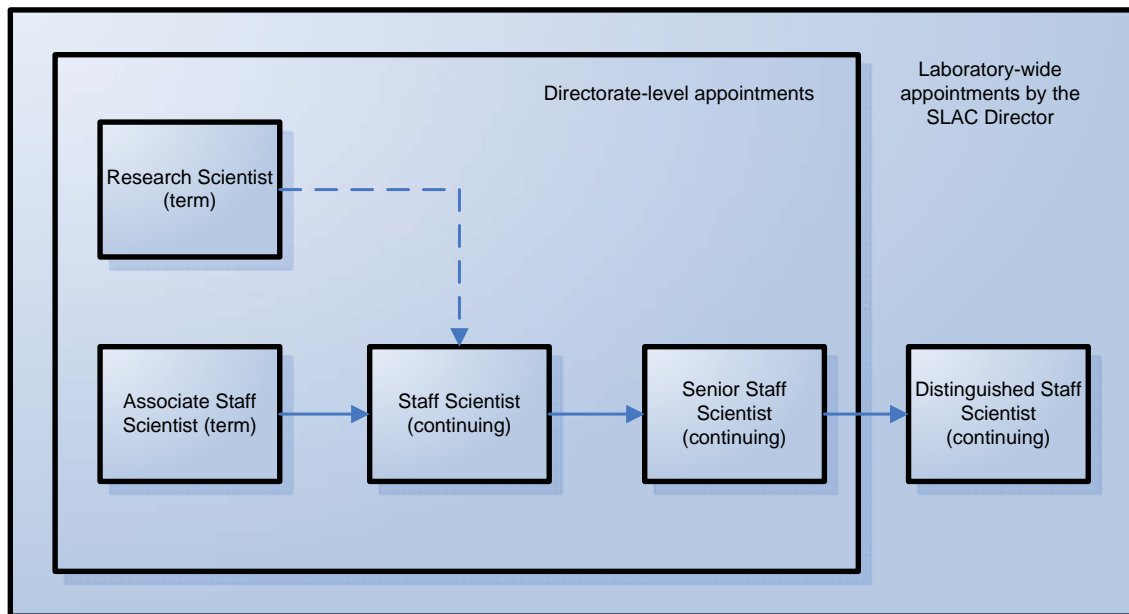
Distinguished Staff Scientists are appointed by the laboratory Director and advancement to this level is guided by a laboratory-wide Staff Scientist Promotion and Appointment Process. This implies a higher threshold for advancement to the Distinguished Staff Scientist level, with the Senior Staff Scientist being a possible end point for career advancement. Assuming continuing high level of leadership and scientific performance aligned with the ongoing laboratory scientific mission, appointment at the Distinguished Staff Scientist level carries a laboratory-wide long-term employment commitment co-terminus with the SLAC M&O contract.

Provision is also made for a non-career path term appointments as Research Scientists at the Directorate level. These positions are attached to specific projects and normally do not lead to long-term employment in the Staff Scientist

series, although in exceptional circumstances a cross-over is possible based on the normal promotion and appointment process.

## Research Scientist

The Research Scientist is a non-career path *fixed-term* research staff position of up to 5 years duration. The position ordinarily requires a Ph.D. or its equivalent in research skill and subject knowledge. The Research Scientist typically works with Staff Scientists, Senior Staff Scientists or faculty members in attaining the goals of a specific research project, which can include instrumentation and methodology development, and/or user support. Support for these positions is derived from the research program or specific projects and not from a long-term funding stream. The position differs from that of a SLAC postdoctoral Research Associate in that it is intended to provide experienced staff scientist support for specific research projects, while postdoctoral appointments are viewed as continuing-education positions.



**Figure 1.** Overview of staff development levels indicating controlling organization for selection criteria and appointments.

## Associate Staff Scientist

The Associate Staff Scientist is *fixed-term* entry-level research staff position for a recent graduate or postdoctoral fellow. Appointments are made within a given scientific Directorate for a minimum 3-year and maximum 5-year term. At the time of hire, a long-term career path within the sponsoring SLAC research Directorate should be identified. The position ordinarily requires a Ph.D. or its equivalent in research skill and subject knowledge. The Associate Staff Scientist typically works with Staff Scientists, Senior Staff Scientists or faculty members in

attaining the goals of research projects, which can include instrumentation and methodology development, and/or user support. The Associate Staff Scientist is expected to demonstrate a capability for conducting an independent research program. The position differs from that of a SLAC postdoctoral Research Associate in that it represents the entry level for a defined employment career path, while postdoctoral appointments are viewed as continuing-education positions.

### **Staff Scientist**

The Staff Scientist is a *continuing-term* research staff position within a given scientific Directorate. Appointment or promotion of a scientist to this level is based on documented scientific achievements during the term as Associate Staff Scientist, or on research and professional work performed at other institutions. The position ordinarily requires a Ph.D. or its equivalent in research skill and subject knowledge. The Staff Scientists may have their own research projects and/or typically have full responsibilities for specific areas of instrumentation or methodology development and user support. With the approval of the responsible Associate Laboratory Director, Staff Scientists may be principal investigators on subtasks of DOE Field Task Proposals. The Staff Scientist may have supervisory responsibility.

### **Senior Staff Scientist**

The Senior Staff Scientist position is reserved for individuals whose accomplishments reflect scientific and professional achievement and recognition considerably greater than that of a Staff Scientist. Advancement or promotion to this level requires an achieved recognition of leadership nationally or internationally, as a result either from original developments in support of photon science or PPA facilities, or original scientific research. Appointment to this level can also be made based on equivalent level of accomplishments achieved at other institutions. The position ordinarily requires a Ph.D. or its equivalent in research skill and subject knowledge. With the approval of the responsible Associate Laboratory Director, Senior Staff Scientists may be principal investigators on subtasks of DOE Field Task Proposals or proposals to other agencies. Senior Staff Scientists may have coordination and/or supervisory responsibility for technical staff, SLAC postdoctoral Research Associates and Associate Staff Scientists. This might include training, guidance in definition of facility development or research, performance evaluation, recommendation on salaries, hiring and termination.

### **Distinguished Staff Scientist**

Appointment to the Distinguished Staff Scientist level is reserved for only a small, selected number of Staff Scientists. This honor requires extraordinary scientific achievement, and an individual at this level is recognized as an authority in the

scientific field both inside and outside of SLAC. Appointment or promotion to this level requires achieved leadership and recognition at a laboratory-wide level resulting from original developments in support of SLAC science facilities or original scientific research, together with a demonstrated ability to manage major components of the SLAC scientific mission. The position ordinarily requires a Ph.D. or its equivalent in research skill and subject knowledge.

Individuals generate and carry out undirected research programs with wide latitude for un-reviewed action or decision. The Distinguished Staff Scientist is expected to provide scientific leadership and may have coordination and/or supervisory responsibility for technical staff or Staff Scientists of all levels. This might include training, guidance in definition of facility development or research, performance evaluation, recommendation on salaries, hiring and termination. The Distinguished Staff Scientist may also have managerial responsibility for a significant research project or organizational unit.

### **Scientist Levels: Appointment and Promotion**

Appointments to staff scientist positions are made through the normal requisition process following established Directorate and Human Resources procedures. In special cases, a waiver of posting may be requested. Promotions within the career development path are not subject to the requisition and advertisement requirements of an appointment, but are governed by the procedures described below.

### **Research Scientist Appointment Process**

Appointments of Research Staff Scientists will be made by the Associate Laboratory Director of the scientific Directorate responsible for the sponsoring scientific program.

### **Associate Staff Scientist Appointment Process**

Appointments of Associate Staff Scientists will be made by the Associate Laboratory Director of the sponsoring scientific Directorate, following normal procedures established for the Directorate.

In the case of LCLS, Photon Science, and SSRL, appointment is made following normal employment selection process. In addition, the Chair of the Promotion Committee must also be consulted.

In the case of PPA, an *ad hoc* search committee normally will be constituted to a conduct a broad international search for suitable candidates. Their

recommendation and the recommendation the sponsoring Department Head will be brought to the PPA Director. The PPA Director will also seek the consent of the PPA Faculty, who will advise on the suitability of the candidate.

### **Staff Scientist Appointment or Promotion Process**

Appointments or promotions to Staff Scientist will be made by the Associate Laboratory Director of the sponsoring scientific Directorate, following normal procedures established for the Directorate.

In the case of LCLS, Photon Science, and SSRL, the cognizant Associate Laboratory Director makes the appointment or promotion from Associate Staff Scientist to Staff Scientist based on a recommendation by an *ad hoc* promotion (or search) committee selected by the Associate Laboratory Director and consisting of 3-5 members, who are SLAC Senior Staff Scientists, Distinguished Staff Scientists or faculty members. One of the committee members should have worked closely with the Associate Staff Scientist considered for promotion. The Chair of the Promotion Committee must also be consulted.

In the case of PPA, the Associate Laboratory Director makes the appointment or promotion from Associate Staff Scientist to Staff Scientist based on a recommendation by an *ad hoc* promotion (or search) committee selected by the Associate Laboratory Director and consisting of 3-5 members, who are SLAC Senior Staff Scientists, Distinguished Staff Scientists or faculty members. One of the committee members should have worked closely with the Associate Staff Scientist considered for promotion. The PPA Director will also seek the consent of the PPA Faculty, who will advise on the suitability of appointing or promoting the candidate.

### **Senior Staff Scientist Appointment or Promotion Process**

Appointments or promotions to Senior Staff Scientist will be made by the Associate Laboratory Director of the sponsoring scientific Directorate, following normal procedures established for the Directorate. In all cases, the appointment or promotion committees will include representative members from across the other scientific Directorates, as proposed by the corresponding Associate Laboratory Directors. These members are in addition to those selected by the sponsoring Director described below and normally are intended to serve on *ad hoc* appointment or promotion committees for a minimum one year period.

In the case of LCLS, Photon Science, and SSRL, the cognizant Associate Laboratory Director makes the appointment or promotion from Staff Scientist to Senior Staff Scientist based on a recommendation by an *ad hoc* promotion (or search) committee selected by the Associate Laboratory Director and consisting of 3-5 members, who are SLAC Senior Staff Scientists, Distinguished Staff Scientists or faculty members. One of the committee members should have

worked closely with the Staff Scientist considered for promotion. The Chair of the Promotion Committee must also be consulted.

In the case of PPA, the Associate Laboratory Director makes the appointment or promotion from Staff Scientist to Senior Staff Scientist based on a recommendation by an *ad hoc* promotion (or search) committee selected by the Associate Laboratory Director and consisting of 3-5 members, who are SLAC Senior Staff Scientists, Distinguished Staff Scientists or faculty members. One of the committee members should have worked closely with the Staff Scientist considered for promotion. The PPA Director will also seek the consent of the PPA Faculty, who will advise on the suitability of appointing or promoting the candidate.

### **Distinguished Staff Scientist Appointment or Promotion Process**

Appointment or promotion to the levels of Distinguished Staff Scientist will be made by the SLAC Director on the basis of a recommendation by an *ad hoc* committee appointed by the Director and consisting of 3-5 members selected from among SLAC Distinguished Staff Scientists or faculty members, and at least one external scientific expert of appropriate stature. The members should be respected members of the SLAC scientific community with substantial knowledge of photon science, particle physics, particle-astronomy or accelerator science research and associated instrumentation. An additional four standing members, who typically will serve a minimum one year term, will be nominated by the Associate Laboratory Directors for the four scientific Directorates.

Scientists under consideration for appointment or promotion shall provide to the following to the committee:

1. A letter from a SLAC Associate Laboratory Director supporting the promotion;
2. Curriculum vitae including a list of publications;
3. A two page narrative of the most important work, and copies of the original publications underlying the work; and
4. The names of 5 suggested references, at least 3 of which are external.

The appointment or promotion committee may seek additional references in the process of reaching a recommendation.