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## A Plan to Facilitate the Early Career Development of Minority Scholars in the Health Sciences

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### Abstract

The EXPORT Health Project at the Center for Minority Health, University of Pittsburgh, partnered with the Center of Excellence in Minority Health at Jackson State University to design and present a Summer Research Career Development Institute (SRCDI) in 2005 and 2006. The goal of the SRCDI was to enhance the early academic career survival skills of postdoctoral and junior faculty investigators doing research on minority health disparities. Institute organizers seek to increase the number of minority investigators who are successful in securing faculty appointments and independent funding through federal agencies. The Pittsburgh/JSU SRCDI admitted a total of 55 (26 in 2005; 29 in 2006) outstanding postdoctoral fellows and assistant professors, from institutions across the U.S. Elements of this model can be exported to other institutions to assist minority faculty in achieving their career goals.

### Keywords

Early academic career development; minority health scholars; health disparities research; academic workforce development

### Introduction

The shortage of minority health professionals in the U.S is a long-standing problem. According to one national report, African Americans, Hispanic Americans, and American Indians as a group account for almost 25 percent of the U.S. population, yet represent less than 9 percent of nurses, 6 percent of physicians, and only 5 percent of dentists (Sullivan, 2004). This underrepresentation of minority health professionals is also reflected in the faculty profiles of schools of the health sciences.

For more than a decade, the accrediting Council on Education for Public Health (CEPH) has mandated that schools of public health should reflect the diversity of the regions in which they are located. CEPH looks for evidence of an institutional commitment to diversity in mission statements and goals, and expects to see plans implemented for the recruitment of diverse faculty and students (CEPH, 2005).

Landmark reports have sounded the alarm about the lack of minority health professionals and researchers over the past 20 years. In 1985, the *Report of the Secretary's Task Force on Black and Minority Health* documented the disparities in key health indicators among certain minority groups in the U.S. (DHHS, 1986). One recommendation was to develop strategies to improve the availability and accessibility of health professionals to minority communities. This led to the establishment in 1985 of the federal Office of Minority Health within the Department of Health and Human Services (DHHS, 1986).

In *Unequal Treatment* (IOM, 2002), the Institute of Medicine (IOM) called for an increase in the number of minority health care providers, because they are more likely to serve in minority and medically underserved communities. The Sullivan Commission on Diversity in the Healthcare Workforce stated that the lack of minority health professions is compounding the nation's persistent racial and ethnic health disparities (Sullivan, 2004).

The continuing scarcity of minority faculty in the health professions raises questions about improving early career development strategies. How are minority scientists, physicians, and other health professionals treated when they begin their academic careers? Do their majority peers treat them as equals? What steps are taken to ensure that minority health professionals achieve academic success? What can be done to enhance the early career development of these minority health scientists? How can minority professionals be helped to achieve long-term career success so as to work toward the elimination of health disparities?

### **Barriers Encountered by Minority Junior Faculty in the Health Sciences**

Even after clearing the hurdles to becoming an undergraduate, a graduate student, and a postdoctoral trainee, many minorities encounter even more hurdles when they become faculty members. Some minority faculty report being treated as a “token hire” by their White peers (Potts, 1992; Turner & Myers, 1999; Laden & Hagedorn, 2000); others report experiencing racial discrimination and bias (Johnsrud & Sadao, 1998; Peterson et al., 2004; Price et al., 2005; Turner & Myers, 1999); feelings of loneliness and isolation (Laden & Hagedorn, 2000; Turner & Myers, 1999); difficulty in obtaining research funding (Antonio, 2002); a “chilly climate” on campus (Turner & Myers, 1999); as well as a sense of being treated as “ethnic specialists” by their colleagues—that is, being treated as experts on minority matters rather than as experts in their chosen fields (Garza, 1988).

Some minority faculty expressed the feeling that their White colleagues devalue the quality of their scholarship (Fenelon, 2003; Thomas & Hollenshead, 2001; Turner & Myers, 1999). A number of minority faculty conduct research and publish in fields related to social justice or in fields that serve their communities. The White colleagues of these minority faculty often view this kind of scholarship as self-serving or too “subjective” (Bernal & Villalpando, 2002).

Minority faculty also encounter structural barriers to their advancement in academic careers, particularly the severe shortage of mentors to assist in their career development (Butner et al., 2000; Laden & Hagedorn, 2000; Thomas & Hollenshead, 2001; Turner & Myers, 1999). Allen et al. (2000) reported that the minority faculty in their study spent much more time than their White peers advising, counseling, and mentoring students, especially minority students, and often feel overwhelmed by institutional expectations to serve on committees that pertain to “minority matters”, such as recruitment of faculty and students of color, community relations, and community outreach (p. 114). On average, African American faculty members taught 1.5 more hours per week than did their White peers (Allen et al., 2000). White faculty in Allen's (2000) study spent an average of two hours more per week on research activities than did their minority colleagues.

The literature on the recruitment and retention of minority faculty makes a strong case for mentoring and post-hiring support (American Academy of Pediatrics; 2000; Butner et al., 2000; Gregory, 2001; Phillips, 2002; Potts, 1992; Smith, 2000; Thomas & Hollenshead, 2001; Turner & Myers, 1999). In describing the need for post-hiring support, Smith (2000) states that the isolation, lack of interest in diversity, and racism that new minority faculty may suffer make getting tenure a very challenging task. Phillips (2002) suggests that institutions offer mentoring programs, support for teaching development and research funding as post-hiring career development strategies.

Post-hiring support programs that teach academic “survival skills” are important in helping junior minority faculty navigate the promotion and tenure process. Gregory (2001) reported that some minority faculty find the promotion and tenure process “ambiguous, unrealistic or unfairly weighed” (p. 128). Johnsrud and Sadao (1998) found that “the ethnocentric view of majority faculty determine the merit of all academic endeavors” (p. 332). It therefore seems natural to provide specialized training in key academic research skills for minority faculty to enable them to achieve academia’s ultimate validation of their scholarly worth—promotion and tenure.

At the University of Pittsburgh, Fischer and Zigmond’s (1998) early writings advocated a “survival skills” curriculum for graduate students that included communication skills, networking and the development of advanced skills, *e.g.*, grant writing. In discussing the needs of “special populations”, such as minorities, Fischer and Zigmond (1998) acknowledged the special demands that are placed on these individuals, including gaining access to the academy’s “informal networks” (p. 39). Fischer and Zigmond (1998) asserted that universities must “offer these individuals strategies for coping with the present demands of scientific life if we are to increase their participation in all fields of research” (p. 39).

To address the career development needs for post-doctoral scholars and junior faculty, Reynolds et al. (2007) developed a postdoctoral clinical research training program in an academic psychiatry department. This program, offered during the course of a 2-year postdoctoral fellowship, provided “research survival skills” such as grant writing, oral presentation, manuscript writing and manuscript and proposal review. Weekly, problem-based learning seminars created lively discussion and led to cross-fertilization of basic and clinical research ideas as well as social support through the establishment of a peer network. An important goal of this research survival skills program is to teach young investigators how to compete successfully for funding (especially NIH “K” awards) to build their academic careers.

Yager et al. (2007) describe a national training program developed at the University of New Mexico to prepare minority faculty for research careers in mental health services. The New Mexico Mentorship and Education Program (MEP) is an annual week-long training institute with a curriculum that includes tutorial sessions between mentors and trainees, individual mentoring sessions, and instruction on community-based participatory research provided by members of the training program’s community advisory board. Yager (2007) acknowledges that no “pre-post study” could realistically isolate the impact of this specific program on subsequent career development, but reports that many trainees believe that MEP activities have contributed to their academic success (p. 149).

## **Development of the Summer Research Career Development Institute (SRCDI)**

The Summer Research Career Development Institute (SRCDI), developed at the University of Pittsburgh’s Center for Minority Health under the auspices of our EXPORT grant (P60) from the National Center on Minority Health and Health Disparities (NCMHD), aims to teach emerging minority investigators the “research survival skills” needed to be secure faculty appointments, promotion, and independent funding. The SRCDI is modeled after the NIMH-funded Summer Research Institute in Geriatric Psychiatry, which over the past decade has helped 300 scholars in mental health and aging to launch their academic careers (Halpain et al., 2001). Marin and Diaz’s (2002) model for developing investigators of color also informed our choice of key strategies. The Marin and Diaz model, developed at the Center for AIDS Prevention Studies (CAPS), University of California at San Francisco, involved collaborative HIV prevention research in minority communities.

The SRCDI had two general parallel goals: 1) offer a “survival skills bootcamp” to help minority faculty develop scientifically meritorious projects and achieve independent grant funding; and 2) to increase the nation’s scientific workforce to address and eliminate minority health disparities.

## Roles of the Partners

We partnered with Jackson State University (JSU), in Jackson, MS, to conduct training on minority health disparities. We chose JSU to attract applicants from Historically Black Colleges and Universities (HBCUs). The leadership of JSU’s EXPORT grant made it clear that they had contributions to make to the partnership and that the Pittsburgh team should view them as equals in planning the SRCDI. The Pittsburgh EXPORT team understood this message and has since sought JSU’s input on every major decision about the SRCDI.

## Decisions on Eligibility and Announcing the SRCDI

One of the first decisions concerned eligibility for the SRCDI. We decided to limit admission to the SRCDI to applicants who had completed a terminal doctoral degree and who were in either a postdoctoral position or a junior faculty position. We believed that the SRCDI would best serve the career development needs of health disparities scholars who were firmly committed to working in university settings. The team had differing opinions on whether the SRCDI should be limited to emerging scholars from other EXPORT Centers and Minority Serving Institutions (MSIs), or whether the SRCDI should be opened to minority scholars from all over the nation. One rationale was that scholars from large research institutions may have already received the kind of training being offered in the SRCDI. The alternative was to reach out to all scholars working in the field of minority health disparities, even those at large, comprehensive institutions, reasoning that these young scholars also would benefit from the SRCDI. We decided to open the SRCDI to all minority health scholars and to distribute the announcement and brochure to the widest possible audience. Information about the SRCDI was distributed to all funded EXPORT Centers and to online communities such as The Spirit of 1848 (a listserv of public health scholars), the Community Based Participatory Research (CBPR) listserv maintained by Community-Campus Partnerships for Health, the Kellogg Health Disparities Scholars listserv, and others.

## The Application Process

Applicants were required to submit a Statement of Research Career Interests, a Curriculum Vita, and a letter of recommendation from an advisor or other faculty member. They were also required to demonstrate their commitment to eliminating minority health disparities through a record of work in this field. We wanted to accept applicants who had a true research interest in health disparities. The final selection process involved faculty from the University of Pittsburgh and Jackson State University. Twenty-six minority scholars were accepted for the 2005 SRCDI and 29 scholars were accepted for the 2006 SRCDI.

## SRCDI Participants

The 2005 and 2006 SRCDI participants represented four ethnic groups (African American, Hispanic, Asian-Pacific Islander, and White). The demographic information on the two classes follows: **Gender** – In 2005, there were 7 male and 19 female participants; in 2006, there were 6 male and 23 female participants; **Race** – In 2005, there were 15 African Americans, 6 Hispanics, 4 Asian-Pacific Islanders, and 1 White; in 2006, there were 19 African Americans, 5 Hispanics, 2 Asian-Pacific Islanders, and 3 Whites; **Prior participation in minority training programs** – In 2005, 12 of the SRCDI participants had

previously attended NIH- or foundation-funded minority training programs; in 2006, 16 of the SRCDI participants had previously attended such training; **Institutional affiliations** – In 2005, the SRCDI participants came from 20 institutions, including, for example, UNC, Columbia, UC Berkeley, and Jackson State University; in 2006, participants came from 22 institutions, including, for example, Harvard, Johns Hopkins, University of Virginia, and Shaw University.

At the beginning of the SRCDI, participants were asked to introduce themselves and describe their career needs. Many participants reported that they did not have a mentor, with one young physician stating that she needed a “national mentor”. Some wondered how to balance the demands of their professional and personal lives. Another asked how he could publish his work in the major journals, the “high impact factor” journals needed to attain promotion and tenure. Others wondered how young faculty members set aside time for writing, given all of the demands placed on them. Many stated that they are constantly being asked to “represent their race” in meetings. One participant related a story that echoed the fact that minority research is undervalued. When this young African American scholar told a senior White faculty advisor that he was interested in doing health disparities research, the advisor dismissed it as “affirmative action research”. This was viewed by the participant as an example of the belittling of minority faculty scholarship.

## Development of the Course Outline

Based on experience from the Geriatric Psychiatry Summer Research Institute (Halpain, 1997), and guided by our Jackson State University partners on the needs of faculty from HBCUs, we developed a course outline for the SRCDI. The process for developing the course outline with a distant academic partner involved weekly conference calls for 6 months. Shown below is the Course Outline for the 2005 and 2006 Institutes. Based upon feedback from 2005 participants and faculty, we offered 2006 participants a more in-depth discussion on choosing a mentor, which included topics such as effective listening and developing a network of mentors. We also offered a more detailed presentation on writing and publishing manuscripts. Participants in 2006 found it useful to hear about writing from the editor of a public health journal and to learn about impact factors for major medical and public health journals.

We incorporated many of the “research survival skills” from the NIMH-sponsored Geriatric Psychiatry Career Development Institute, along with information of particular relevance to scholars working in minority health and health disparities. All of the course sessions were interactive and encouraged discussion among participants and SRCDI faculty. We provide here brief descriptions of key sessions:

### Scientific Autobiography

Participants had the opportunity to listen as two senior minority health disparities scholars discussed their training, how they chose their areas of research interest, the mentoring and guidance they received, and aspects of balancing their career development and personal lives. This session demonstrated models of academic success in minority health disparities and allowed SRCDI participants to get to know SRCDI faculty more personally. Both of the discussants in this session were African American. We believe it was particularly important for SRCDI participants to see role models of successful minority scholars.

### Junior Faculty Panel

This session featured three underrepresented minority junior faculty scholars, two of whom had successfully competed for an NIH “K01” Career Development Award and a third for R01 funding. All three junior faculty discussed how they developing their academic careers

and offered advice about issues such as achieving work-life balance. One discussant was African American, one was of African descent, and one was Native American.

### **Choosing a Mentor**

SRCDI faculty discussed the qualities to look for in a mentor, and what constitutes an effective, productive mentoring relationship. In 2006, the Associate Vice Chancellor for Academic Career Development gave a presentation that included information on selecting specific mentors for specific career needs.

### **Academic Career Pathways in Public Health**

Discussants in this session took a longitudinal view of academic training and professional development. Their presentation included a discussion of NIH funding mechanisms and the NIH Loan Repayment Program. This session was aimed at helping SRCDI participants decide which funding mechanisms would be most appropriate to their career development.

### **Discussion of the Center for Minority Health's Community Research Advisory Board**

This session addressed academic-community partnerships, community-based participatory research, and educating community organizations about academic research. A Community Research Advisory Board (CRAB), comprising faculty, community participants, human service agency representatives, academic researchers, and other interested parties, meets monthly to hear presentations from researchers seeking input from the community on proposed research projects. The CRAB is a model of community engagement with academic research. The session described the CRAB's creation and work with investigators who have come before this board seeking feedback and assistance with research design. Several CRAB members participated in this presentation.

### **Key Elements of a Good Research Proposal**

The session discussed the preparation of a NIH R01 proposal using the standard PHS 398 application form. Discussion included key issues and critical tips for proposal preparation based on the experiences of the presenters and other SRCDI faculty. This session was enhanced by the presence of a program officer from the National Institute of Mental Health (NIMH) Office of Special Populations, who added a funding agency's perspective to the discussion.

### **Oral Platform Presentations by Each Participant**

Participants were each given 10 minutes to make a presentation that addressed the following questions - *What am I doing? Why is it important in the context of health disparities? How am I doing it? What do I need?* Participants were divided into four research interest groups (1 – Psychiatry/Psychology; Stress; 2 – HIV/AIDS/Oncology; 3 – Minority Health Disparities (in general); and 4 – Pediatrics & Adolescent/Environmental Health). Two SRCDI faculty were assigned to each group as facilitators/mentors. This session was designed allow participants to become familiar with each other's research and to facilitate peer support.

Participants were asked to prepare a PowerPoint presentation consisting of a maximum of five (5) slides. In the interest of increasing face-to-face discussion and interaction with peers and faculty, we asked participants to print their slides in handout form and to speak directly from the paper handouts; participants were asked to avoid "lecturing" and to be informal, facilitating interactive conversations with their fellow participants and SRCDI faculty.

Each presentation was followed by 10 minutes of questions and comments from fellow participants, and then by 10 minutes of questions and comments from the SRCDI faculty assigned to their group, for a total of 30 minutes per participant. This session gave participants the opportunity to form connections with peers and assigned faculty mentors that have continued beyond the SRCDI.

### **Mock Study Section**

This session offered participants a glimpse into the workings of NIH study sections. SRCDI faculty who had either served on, or headed, a study section acted the part of NIH reviewers. The Program Officer from NIMH acted the part of the Center for Scientific Review (CSR) administrator. Two SRCDI participants provided real grant applications currently under development (a K01 and an R21) before the SRCDI for “review” by the Mock Study Section. Reviewers wrote their reviews before the Mock Study Section, summarized them during the session, and then discussed each application among themselves, in front of the group. All of the SRCDI participants found this session enlightening and useful. The two participants whose applications were discussed received extensive feedback on their grant proposals.

### **Issues in Health Disparities Research**

A Co-Director of the EXPORT Health Immunization and Pneumonia Disparities Core presented a paper entitled “Health Disparities: Defining a Research Agenda”, which articulated a conceptual model for health disparities research (Kilbourne et al., 2006). The paper described the evolution of health equity research. The first generation documented the existence of disparities; the second explained the reason for disparities; and the third generation suggested solutions for eliminating health disparities. The paper provided a framework that participants could use to formulate their own research agenda.

### **Negotiating for a Faculty Position**

SRCDI faculty presented the elements of an academic job offer that prospective junior faculty members should consider when negotiating for their first academic position. SRCDI faculty encouraged participants to think of all of the benefits that can contribute to academic success, such as protected time for research, release time from teaching, more laboratory or office space, getting a new computer or key piece of laboratory equipment, start-up funds for setting up a laboratory, institutional seed money or pilot funding for research. This session provided a safe forum in which participants could ask questions they might feel uncomfortable asking in the context of their home institutions or in an actual search process.

### **Developing an Effective Curriculum Vita**

A discussion followed on how to effectively plan for and document one’s academic career to address the elements necessary for a compelling promotion and tenure dossier, including: highlighting one’s most important scholarly activities, developing a national reputation (e.g., publishing in well-indexed, high-impact journals and presenting at national meetings), and creating an effective Curriculum Vita.

### **Writing and Publication Strategies**

This session on writing for publication and choosing appropriate journals described the process of peer review, how to respond to reviews, and how to communicate with editors. Participants were invited to submit academic products such as papers in progress, grant applications in progress, and course materials in development. We asked SRCDI faculty and EXPORT Health Core Directors to review these manuscripts and provide feedback during the SRCDI. Participants and their assigned faculty reviewers interacted in person, by

telephone and via e-mail. We also asked SRCDI participants to query the University of Pittsburgh Health Sciences Faculty Research Interests Project (FRIP) database to identify faculty they would like to consult with during their stay in Pittsburgh. Some chose one-on-one consultations with SRCDI faculty; others chose Pittsburgh faculty who were not affiliated with the SRCDI. Meetings were arranged between the SRCDI participants and the University of Pittsburgh faculty they asked to meet.

### **Establishing a Network of Peer Support**

To build relationships, we included several social events in which faculty hosted dinners in their homes for participants, one on the night before the SRCDI, to introduce the group, and the other on the first night of the SRCDI. On the final night, CMH/EXPORT Health hosted a reception for the participants, attended by senior leaders from the University of Pittsburgh Schools of the Health Sciences. These social events were critical to developing trust, forming relationships between SRCDI participants, and creating bonds between the SRCDI faculty and participants. Hosting events in the homes of SRCDI faculty created an opportunity to discuss academic life in its broadest sense.

### **Evaluation of the 2005 and 2006 Institutes**

The 2005 and 2006 Institutes are being evaluated using three assessment methods: 1) a questionnaire administered at the conclusion of the Institute; 2) oral feedback from participants during closing sessions; and 3) a second questionnaire administered approximately 12 months after the conclusion of each Institute. We report here the results of the immediate post-Institute evaluation for the 2005 and 2006 cohorts.

The questionnaire asked participants to rate the various components of the Institute using Likert-type scales and to provide open-ended feedback. Twenty-five of the 28 participants in 2005 and all 29 of the 2006 participants completed the form. Participants were asked to rate: 1) the clarity of oral (platform) presentation instructions; 2) their satisfaction with communication from Institute staff and the responses to their inquiries prior to the start of the Institute; 3) the extent to which one-on-one faculty consultations were helpful; 4) the utility of written course materials; 5) the quality of feedback provided following the oral (platform) presentations; 6) the sessions they felt were most and least useful; 7) the logistics of the Institute (travel arrangements, lodging, food, etc.); and 8) the usefulness and format of the “Mock Study Section”. Participants also were asked for their written suggestions for improving various aspects of the Institute.

In general, the overall management of the Institute, travel arrangements, accommodations and meals were rated highly, although preference for more vegetarian food preference was expressed. The sessions mentioned as being most useful were the mock study section (68%), the oral platform presentations (64%), the description of the “Community Research Advisory Board” (40%) and negotiating for a faculty position (36%). When asked to name the least useful session, the most common response was that “none were least useful” (40%). The second most frequent response was “Key Elements of a Good Proposal”; however, this was identified by only 25% of the participants. Of the other components mentioned as least useful, none was listed by more than three participants.

When asked to suggest topics that could have been included in the curriculum, the most common response by far was “none” (44%). Several participants suggested that more time be allowed for the entire Institute or for particular sessions. Time management and “one-on-one” consultations were specifically mentioned as valuable and requiring more attention.



The one-year follow-up survey will gather information about the research, teaching and service activities of participants and assess the extent to which the Institutes affected these in some way. While it will not be possible to directly link career development outcomes, such as number of grants and publications, as well as teaching and service activities, to the Institute, we will attempt to document important precursors to such outcomes (e.g., time management skills, effective mentoring and successful negotiation for departmental support). In addition, as with the immediate post-evaluation, we will seek ideas for improving the Institute format and content.

The Institute appeared to be a pivotal experience for many participants and the faculty, as illustrated by comments made in the anonymous “post” evaluation survey.

- “This experience has been invaluable. It has provided me with a critical piece in my foundation toward a career in health disparities. I have developed new mentors and colleagues that will be essential components to my success. I highly recommend this institute. Furthermore, this program is holistic in that it addresses a person’s complete well being as they navigate their careers.”
- “This was the most valuable experience I have ever had in terms of career development. Amazing leadership and great peers! Thank you!”
- “I liked that no one had anything negative to say. Everyone helped each other and enriched each other. Every discipline was valued.”
- “This is the first Institute that taught me what it would take for me to be an excellent scholar.”
- “I felt like I had real academic mentors. Now we are part of an academic family.”

In general it was clear that the participants had formed relationships with each other and with the faculty/presenters that they believed would be of value in the future, thereby adding important components to their personal support networks.

In Table 1, we present a “Planning and Evaluation Model for the SRCDI”. Elements of this model can be used to develop short-term career development training and to assess the outcomes of the training.

## Discussion

The SRCDI appeared to be a transformative experience for many participants as well as SRCDI faculty. After two-and-a-half days of intense work, participants came to think of themselves as a cohort, as a cohesive group that desired to stay in touch, reconnect frequently, do research together where feasible, and come back together with SRCDI faculty in a reunion. Additional feelings, ones which had not been articulated on the first day of the SRCDI, surfaced at the closing Feedback Session. Several participants talked about the isolation they felt at their home institutions, and how they perceive their research to be undervalued (particularly in medical schools). One young physician told us that, when she described her desire to do community-based work in disease prevention, some of her physician colleagues replied incredulously, “You want to work where? You want to go out into the community?” She talked about how the Institute made her understand that there are many other young scholars like her. The participants bonded significantly with SRCDI faculty, which stimulated many individual conversations on mutually relevant issues. A number of young women were comfortable in approaching one SRCDI faculty member to discuss issues of balancing work and family life.

These young scholars now realize that they are not alone in their commitment to health disparities and that their work has value. One way an institution can demonstrate its commitment to minority faculty and their career success is by sponsoring a similar research “survival skills” program for emerging minority scholars. The professional support these scholars receive will likely make them feel personally supported as well. An additional benefit is that, by bringing minority faculty together for specialized career training, they are able to connect with each other. This connection can help to alleviate the feelings of isolation that many minority faculty report suffering at majority institutions.

## Lessons Learned

The organizers learned a number of lessons from planning and executing the SRCDI:

1. Even though an outstanding young scholar may be at major research institution, he/she requires the same career development training that a peer from a Historically Black College or University needs. Being a trainee or junior faculty member at a major institution does not automatically mean that someone—a mentor, a senior faculty member, or colleague—will help impart the skills required to succeed. Our participants were hungry for the nurturing they received during the Institute.
2. Our partners at Jackson State University had important contributions to make to the planning and execution of the SRCDI. We were better able to shape the curriculum to meet the needs of participants from HBCUs because JSU was part of the planning. Relationships between research intensive institutions and HBCUs are challenged by the difference in institutional culture and resources. However, for our Institute, the richness in perspectives brought by our JSU colleagues was a valuable addition to the planning and execution of the SRCDI.
3. Cohesion and synergy can result from bringing young scholars together with similar research interests. The sense of bonding and becoming part of a cohort that resulted from the SRCDI was particularly powerful. The SRCDI made some of the young faculty members feel they belonged to a community of scholars. Many of our participants carry out their research in the communities outside their institutions, and miss the feeling of being part of a community of scholars within their institutions.
4. Those working in the field of minority health disparities often feel that their work is undervalued at majority institutions. Through discussions on such topics as the work of the NCMHD and its funding of EXPORT Centers of Excellence, issues in health disparities research, the work of the Community Research Advisory Board, the Scientific Autobiography, and the Junior Faculty Panel, SRCDI participants gained a broader view of minority health disparities research.
5. Finally, we learned how important it is to sustain interactions with the SRCDI participants, whom we now call “alumni”. At the end of the Institute, participants received a certificate to commemorate their participation in the program, and a group photo was taken at the reception held on the last night. Six weeks after the SRCDI, each alumnus/alumna received a professionally printed certificate and an 8" × 10" copy of the group photo, both of which were presented in a University of Pittsburgh diploma cover.

The Pittsburgh EXPORT Project Director also maintains a distribution list of SRCDI alumni and forwards items of interest to them almost daily. Several SRCDI faculty continue to consult with alumni via phone calls and e-mails. The Co-Director of the EXPORT Physical Activity and Obesity Prevention Core, who co-taught the “Key Elements of a Good

Proposal” session in the 2005 SRCDI, is currently consulting with four (4) SRCDI alumni on various projects related to their mutual research interests.

In January 2006, seven months after the June 2005 SRCDI, a SRCDI Reunion was held in Washington, D.C. The Reunion was held a day before the National Minority Leadership Summit on Eliminating Racial and Ethnic Disparities in Health, a meeting co-hosted by the federal Office of Minority Health and the CMH. SRCDI alumni in attendance gave updates on their career progress, received feedback from several SRCDI faculty, and met with multiple project officers from NCMHD and NIMH.

## Conclusion

The SRCDI provides a major opportunity for participants to enhance academic career skills and join a research cohort. Our experience in offering the SRCDI also demonstrated that it can be a useful means of identifying qualified minority faculty candidates. Many institutions justify their lack of faculty diversity by claiming that they cannot find qualified minority faculty. Though their number is relatively small, outstanding minority faculty are out there and institutes like the SRCDI provide an attractive entrée into an academic career.

The University of Pittsburgh’s EXPORT Center focuses on increasing community capacity for participation in health promotion and disease prevention research. The SRCDI fits within this theme by building a community of young scholars in minority health and increasing their capacity for success in conducting disease prevention activities and research to eliminate health disparities.

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**Table 1**  
 Planning and Evaluation Model for the Summer Research Career Development Institute (SRCDI)

Barriers to Academic Success Encountered by Minority Faculty	SRCDI Component(s) Addressing that Barrier(s)	Outcomes	Short-Term Evaluation (at end of Institute)	Long-Term (12–18 months) Evaluation
<p><b>Isolation and lack of mentoring</b>                      Turner and Myers (1999)</p>	<p>Choosing a Mentor                      Scientific Autobiography                      Oral Platform Presentations</p>	<p><b>Creating a sense of community and empowering collaboration</b> - SRCDI participants learned how to choose an effective mentor, how experienced senior faculty members had coped with these problems, and met other minority faculty from their fields with whom they could collaborate.</p>	<p>Self-report of knowledge concerning selection of appropriate mentors and colleagues.</p>	<p>Effectiveness in identifying and working with a mentor.</p>
<p><b>Devaluation of “minority” research</b>                      Turner and Myers (1999)</p>	<p>Scientific Autobiography                      Academic Career Pathways in Public Health                      Issues in Health Disparities Research                      What is the CRAB (Community Research Advisory Board)?</p>	<p><b>Reinforcing the value of minority health disparities research</b> – SRCDI sessions emphasized the importance of this field of research by highlighting community-based participatory research, third-generation, evidence-based/interventional research in health disparities, and the potential importance of the field of minority health disparities as a model for “translational” research.</p>	<p>Self-report of learning outcomes concerning value and strategies for health disparities research.</p>	<p>Publication and research record for minority health issues.</p>

Barriers to Academic Success Encountered by Minority Faculty	SRCDI Component(s) Addressing that Barrier(s)		Outcomes	Short-Term Evaluation (at end of Institute)	Long-Term (12-18 months) Evaluation
<p><b>“Token Hire” or “Ethnic Specialist” misconception</b> Turner and Myers (1999) and Laden and Hagedom (2000)</p> <p><b>Lack of adequate publications</b> Laden and Hagedom (2000)</p>	<p>Scientific Autobiography Faculty Panel: Launching Your Career One-on-One Consultations Informal “Time Management” Talk given by Drs. Reynolds and Quinn</p> <p>Writing Papers for Peer Review Review of participants’ academic products</p>		<p><b>Giving advice about guarding your time carefully when you are a tenure-track minority faculty member</b> – The participants heard from junior and senior tenure-track and tenured faculty members about how to say “No” to many of the minority-related assignments that institutions give to minority faculty members. Encouraging participants to seek a specific career benefit in such assignments.</p> <p><b>Helping participants overcome perceived writing “blocks”</b>—detailed discussion led by a journal editor and highly cited faculty authors and journal reviewers, on editorial policies, peer review of papers, journal impact factors, time management for writing and overcoming the “perfection complex”.</p>	<p>Self-report understanding strategies for avoiding over involvement in activities that are not beneficial to career development.</p> <p>Self-report of knowledge of strategies to overcome writing blocks.</p>	<p>Assessment of participation in meaningful academic activities.</p> <p>Evidence of production of various types of manuscripts (articles, technical reports, research grants, etc.)</p>

Barriers to Academic Success Encountered by Minority Faculty	SRCDI Component(s) Addressing that Barrier(s)	Outcomes	Short-Term Evaluation (at end of Institute)	Long-Term (12-18 months) Evaluation
<p><b>Lack of productivity in research and difficulty in obtaining research funding</b>                      Allen et al. (2000); Antonio (2002); Phillips (2002); and Turner and Myers (1999)</p>	<p>Scientific Autobiography                      Faculty Panel: Launching Your Career                      Grant Writing: Developing a Research Proposal                      Mock Study Section                      Review of participants' academic products</p>	<p><b>Imparting key skills in developing and writing research proposals</b> – SRCDI participants benefited from the experience, highly funded researchers, many of whom serve on NIH study sections. Participants saw a demonstration on how an NIH study section reviews proposals. Participants who submitted proposals as their academic products got critiques on their proposals from SRCDCI faculty.</p>	<p>Knowledge of strategies for preparation of successful proposals for research funding.</p>	<p>Record of research proposal development.</p>
<p><b>Lack of information about promotion and tenure</b>                      Turner and Myers (1999) and Gregory (2001)</p>	<p>Faculty Panel: Launching Your Career                      Developing an Effective Professional Portfolio                      One-on-One Consultations                      Negotiating for a Faculty Position</p>	<p><b>Providing important information on institutional expectations for promotion and tenure</b> – Participants learned about creating an effective CV, creating a "national reputation", establishing key social and professional networks, and negotiating from the beginning for resources that will aid in attaining promotion and tenure.</p>	<p>Self-report of knowledge gained about strategies for meeting promotion criteria at their institutions.</p>	<p>Progress made toward promotion within their base institution.</p>

Barriers to Academic Success Encountered by Minority Faculty	SRCDI Component(s) Addressing that Barrier(s)		Outcomes	Short-Term Evaluation (at end of Institute)	Long-Term (12-18 months) Evaluation
<p><b>Occupational stress</b> Turner and Myers (1999)</p>	<p>Scientific Autobiography Faculty Panel: Launching Your Career Informal talk on "Time Management" One-on-One Consultations</p>		<p><b>Frank discussions about work/family life balance and time management issues</b> – SRCDI participants expressed concerns about these issues and learned coping strategies and tips from established faculty members on managing career stress.</p>	<p>Self-report of learning outcomes on course evaluations concerning time management and family life balance.</p>	<p>Self-report of issues encountered and how these were managed.</p>
<p><b>Lack of "informal" institutional orientation for learning the "unwritten" rules of the academy</b> Thomas and Hollenshead (2001)</p>	<p>Scientific Autobiography Faculty Panel: Launching Your Career One-on-One Consultations</p>		<p><b>Informing participants about how to survive and thrive in academia</b> – For example, learning to build a coalition of colleagues and supporters from other institutions if you cannot find willing mentors within your institution.</p>	<p>Self-report of learning outcomes on course evaluations concerning effective networking to obtain support for professional development.</p>	<p>Descriptive data concerning extent to which effective networking has occurred.</p>