CAREERS IN CANCER PREVENTION: WHAT YOU MAY NOT SEE FROM INSIDE YOUR ACADEMIC DEPARTMENT—A REPORT FROM THE AMERICAN SOCIETY OF PREVENTIVE ONCOLOGY'S JUNIOR MEMBERS INTEREST GROUP

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The American Society of Preventive Oncology (ASPO) is a professional society committed to advancing cancer prevention and control and providing meaningful career development opportunities for members at every stage in their career (www.aspo.org). The Junior Members Interest Group was formed in 1999 to represent the interests of predoctoral, postdoctoral, and junior faculty members within the society (1). Members of the Junior Member Interest Group sit on the ASPO Executive Committee and the Program Planning Committee, and organize professional development sessions to be held at the ASPO annual meeting.

At the 2012 ASPO meeting, the Junior Members Interest Group session titled, "Careers in Cancer Prevention: What you may not see from inside your academic department," featured a panel discussion of career paths in cancer prevention research outside of academia. Four invited speakers (DB, DE, CL, and HP) provided brief presentations about their experiences within nonprofit organizations, government, cancer centers, and health care research divisions and answered questions from the audience. The speakers highlighted their training backgrounds, career paths, and responsibilities within their current positions, and described typical career trajectories within their organization. Finally, the speakers commented on the advantages and disadvantages of the positions they held compared with academic appointments in a university department. Although individual training backgrounds, career paths, and career stage varied between speakers, several common themes emerged and are described here.

Matching personality type and work environment

The speakers emphasized the importance of recognizing your individual aptitudes and personality type and discovering which environments provide the best fit for your working style. In all of the chosen career paths represented, establishing and maintaining connections within and across institutions was critical to job success. The panel suggested that individuals who are more naturally extroverted may experience greater ease in building a strong network; this may be a more challenging, but equally necessary, role for more introverted individuals. It may be important to assess potential institutional career "homes" regarding their expectations and support for such networking and collaborating. When choosing career paths and avenues of study, individuals may benefit from considering how their personality type will help or hinder future research efforts; for instance, the initiation of community-based research requires deep and continuous network building not only with academic colleagues but also with community members and organizations. Investigators should be cognizant of the suitability of their working style when considering such new directions. In some institutions, there may be few individuals with similar training in your department. This may suit some individuals well who feel comfortable serving as the resident expert in their field, but others may desire a greater number of immediate colleagues with similar training for scientific discussion and collaboration.

Unexpected opportunities

Many of the speakers found their current position when they were not looking to move or change positions, but were willing to take the time to learn about new opportunities and visit different institutions. National job searches can be extremely valuable and can help you to gain perspective on the strengths and weaknesses of your current environment. Meeting other people through a national job search can increase awareness of your personal research and provide an opportunity to form new connections that may lead to additional collaborations. Although it is becoming more common for individuals to stay at an institution where they completed some or all of their training, it was generally agreed that strengths and skills of an individual are often not best appreciated by their home institution, and that it can be beneficial to leave
and return, or to establish yourself at a new institution. However, the advantages of working at varied institutions must be balanced with the time and energy it requires (often 2 years or more) to start up a new research program. This is particularly true for community-based research, where it can be very difficult to leave established connections and can take several years to build resources and trust in a new community.

**Moving in and out of academia**

Positions are not static; individuals often move in and out of academic positions over the course of their careers. Despite the perception that moving outside of the academic realm will limit career choice in the future, there are often opportunities to engage in activities that preserve or enhance qualifications for an academic position such as grant writing, manuscript publication, and conference presentations. Maintaining connections with outside agencies through scientific meetings, collaborations, and funding sources (e.g., by interacting with program officers at NIH) may lead to future unexpected opportunities, both inside and outside of academia.

**Transdisciplinary research**

With an increasing focus on transdisciplinary research, understanding the viewpoints, critical elements, and methods of other cancer prevention and control professionals can provide unique insights to the challenges, needs, and gaps in cancer research. It can be invaluable to gain clinical perspective to better appreciate the contribution of an individual area of research and how it can best be applied. Personal examples of experiences that provided this perspective included work as a certified tumor registrar or tobacco dependence counselor and other positions that interact extensively with health care system providers.

**Advantages and disadvantages of nonacademic positions**

Nonacademic positions, like academic appointments themselves, vary widely within and between institutions. The advantages discussed for nonacademic positions included fewer teaching responsibilities and a highly collaborative, dynamic workplace environment with colleagues from diverse backgrounds. In the panelists' experience, positions tended to be self-directed with well-supported infrastructure and resources; some provided unique opportunities for outcomes research by providing access to institutional resources such as electronic medical records or large registries. Many projects are team-based, giving the sense of being part of something larger, and the path to translating research findings to health interventions or policy guidelines can be more rapid. Speakers found that they were able to contribute to a full spectrum of research, from small pilot studies to large intervention trials. Institutional salary support ranged from 0% to 100% with some positions allowing applications for grant support and others requiring outside support for yourself and staff. Although teaching was often not required, adjunct positions were encouraged, and opportunities to lecture in or lead academic courses were common. Opportunities often exist to work with students through formal and informal institutional agreements, fellowships, and internship programs.

Disadvantages of the positions represented by the panelists included the difficulties of having a wide range of training backgrounds among your immediate colleagues, which can be somewhat isolating and perhaps make it more difficult to stay abreast of developments in your own field. In settings in which your work differs greatly from that around you, you may have fewer publications (but be first author on a greater number of them), or you may frequently be a coauthor on publications outside of your discipline. Your discipline's methods may not be as valued, and because teaching is not emphasized, other administrative responsibilities may be expected. However, this type of environment can also provide unique advantages in building trans-disciplinary research or adopting methods that are novel to your field. Both tenure-track and nontenured positions were represented; although nontenured positions did not have the same focus on the "tenure clock," these positions may have more or less job security. It was noted that some nonacademic positions may count toward time in rank for future academic positions and that this is something for individuals to discuss with potential employers as they explore different positions.

**General recommendations**

Other recommendations put forth by the career panel are applicable to both academic and nonacademic positions. These included having a well-defined mentorship plan, both inside and outside of your institution. In addition, take the time to learn the details of the research infrastructure before accepting a new position and do not underestimate the start-up time needed to get off the ground. Highly successful individuals seek help and guidance: ask questions, but be prepared and gracious with others’ time. Review your CV regularly and critically evaluate skills you may need to develop outside of published papers and grant support. Maintain contacts between old and new work environments and build capacity to reach outside of your department walls. Realize that your discipline cannot answer all questions; respect the methods and learn the vocabulary of other fields. Although venturing outside of your area of expertise can be uncomfortable, it can be a valuable opportunity to learn from other disciplines or establish new collaborations. Find a peer group to interact with, discuss career options, and negotiate life changes, children, new jobs, and other developments. Most of all, be a good colleague and realize that training continues throughout your career.

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