A career as an academic anesthesiologist is a riot. This career affords an opportunity for continuous personal growth while developing the specialty through educating residents, contributing to the literature by scholarship and research, and in this way building upon and further developing the history of anesthesiology. While most of the academic anesthesiologists practice in one of the 140 academic anesthesiology departments in the United States and have built their career after completing residency training, there are colleagues who return to academia later in life while others work outside these centers and so contribute significantly to the development of our chosen specialty. Nevertheless, most successful academic anesthesiologists have chosen this career early on. The skills needed are hard won and the expertise developed takes many years to attain. As an academic colleague of mine states, “Private practice anesthesia is a job, while academic anesthesia is a career.”

More usually, a resident-in-training will develop an interest in pursuing an academic career and then progress from there. While many decry the high salaries that are now prevalent in private practice, I believe that this is an opportunity. Academic salaries – while not as high – are substantial. One can have a very fruitful academic career (under current conditions) without fear of becoming impecunious (and pay off student loans fairly rapidly).1

Career Path

After residency, the usual route is to do a fellowship in one’s area of interest. This can be a clinical fellowship or a research fellowship. American College of Graduate Medical Education (ACGME)-accredited fellowships are now available in pediatric and cardiac anesthesia as well as pain medicine and critical care and obstetric anesthesia. An ACGME-approved regional anesthesia fellowship will be available from 2017. Some institutions provide fellowships in neuroanesthesia as well as simulation. The importance of a fellowship is that it builds an area of clinical subspecialty expertise upon which you can build your career. A research fellowship is an outstanding opportunity, as this allows one to really develop the necessary expertise for a research career in the future, which includes learning to write manuscripts and apply for grants. During the time of your fellowship, you will also prepare for the oral board examinations. A further benefit of a fellowship in an academic department is that you will continue in an academic environment during the period of preparation for these examinations. Instead of the fellowship, some institutions will have a 2-year clinical rotating instructor position, allowing you to gain expertise as a consultant while preparing for the boards.

Once this fellowship or clinical instructorship has been completed and board certification has been achieved, the individual will be appointed as an assistant professor of anesthesiology.

Promotion and Tenure

The promotion and tenure process may be different in many institutions. Suffice to say that most clinical anesthesiologists are not promoted on the tenure track and that most institutions (and departments of anesthesiology) have well-defined promotion guidelines upon which the promotion to associate professor and subsequently (full) professor are based. The promotion to associate and then full professor usually takes at least six years for each step. With this promotion, in most departments there is an incremental increase in base salary scales, although nationally there is a trend for narrowing the gap between base salaries of assistant and full professors.

Tracks

While there are no well-defined steps on building an academic career one can review the careers of previous academic anesthesiologists and characterize these loosely into tracks. The key is the development of unique expertise, upon which scholarship and possible research can be based.

Although research is not essential to an academic career, I believe scholarship, the collation of (new) knowledge and wide dissemination of this through peer-reviewed mechanisms, is absolutely essential.
In the past, academic anesthesiologists were expected to be “Triple Threats,” i.e., clinicians, researchers and educators. This requirement is unrealistic today; however, the successful academician is often a “Double Threat,” both experts in a subspecialty clinical area and in education, administration or research. Nevertheless should you want to serve as a Chair of a Department later in your career, you are wise to strive to be a “Triple Threat.”

Clinical Subspecialty
This “track” could be developed as follows: the assistant professor, having done a fellowship in cardiac anesthesiology, decides to develop clinical expertise in echocardiography, with a special interest, for example, in intraoperative evaluation of mitral valve disease. The assistant professor will start by building his or her knowledge of echocardiography, lecture to the residents and Fellows, and design a research project around this subject area of interest. He or she will give a Grand Rounds lecture in his or her institution on the subject and progress to lecture locally and then nationally on the subject of interest. The research project will be written first as an abstract for presentation at a national meeting and then as a full manuscript of the completed research project. Additionally, a case report and/or a review article on the subject could be written and published. Hence, the assistant professor evolves into an expert on the subject, and soon will be invited to speak nationally, and possibly internationally, on the subject.

Education/Teaching
This “track” would develop as follows: the assistant professor has decided that education is the area of his or her interest. Education is clearly not just teaching but all that goes with providing an environment in which medical students and residents may develop and learn. This includes developing and implementing the structure, curriculum and evaluation of the education process. The assistant professor would start by developing expertise in education. Joining the Society for Education in Anesthesia, www.seahq.org, would be a good start in support of this endeavor. The assistant professor would serve on medical student and/or resident education committees with the goal of eventually heading a clinical competency committee, medical student rotation or residency program in the department. Along the way, the individual would become particularly interested in a certain area, such as resident evaluation systems, and study and develop these, and so become a regional and, possibly national, expert on this subject. From this would flow scholarship which could be presented and published.

Simulation/Education
Another track would be developing expertise in education through simulation in its many forms. Well-known examples are the full-body simulation systems, but any model used to allow practice independent of patient care can be used in simulation to achieve this.

Research
This “track” is often preceded by a research fellowship, but the latter is not a prerequisite.
This can take the form of clinical, education or basic science research. Substantial additional training is often required and it is essential to have appropriate mentorship within the department and/or the institution to assure that the assistant professor does not become frustrated and give up on a promising career.

Operating Room Management and Administration
With the increasing complexity of perioperative care as well as the administrative processes within the departments of anesthesiology, there is an increasing trend for academic anesthesiologists to build a career around scholarship in these areas.

Skills and Expertise
There is a great deal that needs to be developed in an academic anesthesiology career beyond the obvious need to be a knowledgeable and consummate clinical anesthesiologist. Below is a brief summary by way of illustration.
Teaching
Teaching can take many forms. All require special expertise and knowledge. By way of example, one will need to develop different expertise whether one is teaching in the operating room, a small group, conducting a problem-based learning discussion or giving a lecture in an auditorium filled with 200 to 300 people.

Presentation
The development of presentation skills is crucial to an academic career. Think only of how differently you would approach preparing a poster at an academic meeting, illustrating the presentation of an anatomy lesson for medical students, putting together an instructive talk on your area of expertise, or presenting options for analgesia to expectant mothers planning to visit the obstetric unit. Oscar Wilde has said, when talking of a presentation, “I would have made it shorter but I did not have enough time.”

Writing
The skill of writing for publication will be one that requires support and practice to develop. A way that you can learn this is through a good mentor who supports you in writing, from your first case report to manuscripts and grant submissions. While this may seem trivial, the writing of a case report teaches one to be singularly focused on teasing out the key issues and writing this down in an instructive, readable, yet parsimonious fashion.

Leadership and Management and Communication
As you grow in your area of expertise, you will be asked to become a director of a division, chair of a department of hospital committee, chief of a clinical service, a residency or fellowship program director, or perhaps even a departmental chairman. Clearly you will need to develop skills in administration and leadership to help create an environment that brings out the best in your colleagues.

Conclusion
I hope that I have been able to encapsulate what a career in academic anesthesiology may look like. As in life, there is no set path. Half the fun is the journey. If you want to make a difference to your chosen specialty and help build its history, academic anesthesia beckons. Will you take the challenge?

References:

CHAPTER 6
Anesthesia in the Armed Forces
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Introduction
Physician anesthesiologists continue to care for patients in austere conditions for both combat and non-combat casualties, throughout the world. Military physician anesthesiologists are serving worldwide and remain ever ready to deploy to support relief contingency efforts – from natural disasters and non-combat related injuries in the United States or abroad, to combat zones in support and care for those impacted by war.

Military Unique Activities
The fundamental distinction between civilian and military anesthesiologists is in their unique activities while deployed with warfighters. A casual inspection of military anesthesiology reveals a work environment similar to any American civilian institution, with its equipment, supplies and anesthetic approaches common to most anesthesiologists. However, a closer inspection discovers the military anesthesiologist removed from comfort zones to face tasks and circumstances that demand his or her deepest reserves of expertise, endurance and emotional resolve. Some