



**CAPE: Collegiate Athlete Pre-Medical Experience**  
**A program to inspire and guide exceptional women into medical careers**

**Synopsis**

CAPE (Collegiate Athlete Pre-Medical Experience) is a year-round program offered by Duke University Medical Center to selected female athletes on Duke University's twelve collegiate varsity athletic teams. The program provides participants with a wide variety of clinical experiences that provide exposure to the world of Medicine. CAPE is designed to engage some of the nation's highest achieving young women in medical science and to assist them toward careers in Medicine.

**Rationale**

Collegiate athletes at Duke possess a powerful portfolio of common attributes: they are goal-oriented; they possess a tremendous sense of purpose; they manage their time efficiently; they focus their energies; they juggle multiple and diverse spheres of activity; and they function well both independently and as members of a team. As student-athletes, they have also developed a refined sense of both courage and grace through balancing academics and sports, whether on a winning or losing team. The field of Medicine continuously seeks to educate the best and the brightest among the country's college graduates, so as to ensure the quality both of future medical care and of the research which forms its basis. Success in medical school and in a medical career hinges on precisely those character attributes demonstrated by college athletes; these individuals, if engaged and well supported, will be likely to succeed in medical careers – that is, to provide quality patient care, function as valuable team players in the health system, assume leadership roles in their institutions and fields of specialization, and contribute to the advancement of medical science.

The medical profession has made great strides over the past two decades in attracting women into Medicine. Women now comprise 50% of the students enrolled at the Duke University School of Medicine; this number is representative of medical school enrollments nationwide. Yet the proportion of female doctors who advance in academic medical careers, assume leadership or upper-level faculty positions, and launch careers as prominent physician-scientists remains woefully slim. Female physicians have cited the lack of role models, institutional support, and mentoring opportunities for young women as major reasons that their career paths fail to match the professional advancement of their male counterparts.

**Program and Activities**

CAPE targets female undergraduate athletes who are academic achievers and express potential interest in careers in the field of Medicine. The program facilitates participants' entry into medical education by introducing them to many elements of medical education and practice and providing them with well-rounded, advanced-level experiences. CAPE provides student-athletes with the opportunity

to assume significant (supervised) responsibilities in medical care through independent study, lectures, discussion groups, and one-on-one mentoring. The program attracts and supports a pool of future physicians and physician-scientists who will prove to be outstanding in their careers and chosen fields.

### **Background and preliminary work**

CAPE has existed informally since 1999 when Georgia Schweitzer, then a Duke sophomore basketball player, began a mentoring relationship with neuro-oncologist Henry Friedman, MD. Georgia graduated from Duke in 2001, played professional basketball for 3 years and entered Duke School of Medicine in 2004. Dr. Schweitzer Beasley graduated in 2008 and began her residency in Surgery at Duke in July, 2008.

Following the example of what occurred with Georgia Schweitzer; Dr. Friedman has mentored a series of female student-athletes at Duke. The concept of creating a formalized program arose out of his observation that Duke has a steady and sufficient number of outstanding female scholar-athletes who demonstrate interest in, commitment to, and potential for successful medical careers. To ensure that a structure exists to support these promising students, Dr. Friedman has institutionalized the program. CAPE has:

- an administrative structure
- a Board of Advisors
- a roster of program faculty
- a core curriculum
- a formal application process
- affiliation with Duke's Baldwin Scholars Program

### **CAPE structure**

#### Administration

Rather than a single director, CAPE has an administrative structure which apportions responsibilities to the Duke faculty members with the most relevant experience. This structure is designed to maximize efficiency and to garner participation from those in the best positions to inspire and assist potential medical school applicants.

Co-Directors: Henry S. Friedman, MD, James B. Powell, Jr. Professor of Neuro-Oncology

Allan H. Friedman, MD, Guy Odom Professor of Neurological Surgery

Associate Director: Terry Kruger, Associate Director of CAPE, Neuro-Oncology Program

Liaison for Undergraduate Studies: Steve Baldwin, PhD

#### Mission Statement- Board of Advisors

The CAPE Board of Advisors is charged with generating financial support for the program as well as creating network opportunities that expose CAPE students to the diverse medical and other educational venues available to them.

Chair – Sara Brandaleone, retired investment banker and philanthropist

Kathryn Andolsek, MD, Associate Dir, Graduate Medical Education, Duke University

Georgia Beasley, MD, Duke Graduate 2001, MD 2008, Surgical Resident, Duke University

Bruce Brandaleone, retired investment banker and philanthropist

Laura Gentile, Vice President, ESPN

George L. Grody, Retired, Global Strategic Alliance, Procter & Gamble  
Kristina Johnson, PhD, Business Entrepreneur  
Scott McCune, Vice President Worldwide Sports, Entertainment and Media, The Coca-Cola Company  
Larry Moneta, EdD, Vice President for Student Affairs, Duke University  
Jacki Silar, Associate Athletic Director, Duke University  
Jean Spaulding, MD, Vice Chancellor for Health Affairs, Duke University  
Gwynne A. Young, Shareholder - Carlton Fields, P. A., Tampa, Florida

### Faculty

It is especially important for young women who aspire to become physicians, clinicians and/or medical researchers to have first-hand exposure to eminent practicing physicians and medical researchers. For CAPE students the Duke medical community has been wonderfully responsive in meeting that need. CAPE faculty mentor students during summer internships, as program participants rotate through the clinical practices of the faculty. Student-to-faculty matching is based on the stated interests of each CAPE student. The most important tasks of a good mentor are to help the student achieve her goals, and the role of mentor requires both dedication and commitment of time. A good relationship with a supportive, active mentor has been shown to contribute significantly to successful career development and satisfaction on the part of the student as well as the development of important extrinsic and intrinsic values for the mentor.

### **CAPE program detail**

#### Identification and Application Process

Students are identified at the beginning of each school year through direct communication from head coaches of varsity teams, the Associate Athletic Director, the Office of Student Affairs and others associated with athletes and student life at Duke. Another avenue of admission to the program is through our cross-program exchange with the Baldwin Scholars Program, an affiliation (explained below) which benefits students in both programs.

Freshman typically apply during the fall semester, immediately after fall break using a written application and essay. Attendance at bi-weekly CAPE meeting is allowed but not required, after the application process has started. Students accepted into CAPE formally start in the beginning of their sophomore year. While often students are referred and apply to CAPE during their freshman year, some students may first apply to CAPE as sophomores, juniors or seniors. Completion of a pre-medical designated course work is also required, for example Organic Chemistry or Physics.

### Curriculum

The core curriculum for CAPE participants consists of both school year and summer activities.

#### *School-year activities*

- 1) *Consultations:* For one semester each year, students at the sophomore level and beyond shadow physicians as they perform new patient consultations at The Preston Robert Tisch Brain Tumor Center at Duke Medical Center. They learn the essentials of conducting a history and neurological examination, and very rapidly they are given primary responsibility as the first healthcare provider to see a new patient, take a history, do a neurological examination, and report to

the attending physician. The attending and the student then return to the room for completion of the consultation. Each student performs at least one consultation weekly throughout their clinical semester; additional consultation opportunities may also be available. During the other semester the student participates in activities (defined below) offered twice monthly throughout the academic year. During the semester in which a CAPE student is not seeing brain tumor patients, she is given the opportunity to attend weekly clinics of CAPE faculty members in areas of practice outside of the Preston Robert Tisch Brain Tumor Center.

## *2) Monthly Activities*

- a) *Journal Club*: At the monthly journal club meetings, CAPE students discuss assigned readings which address a broad span of issues in the medical field.
- b) *Role Model Dinners*: The CAPE students host female medical students, housestaff, attending physicians and other healthcare providers. They are given a real-world, rigorous exposure to the path they seek to follow.
- c) *Leadership Sessions*: CAPE students meet with leaders both inside and outside of Medicine to gain understanding of the skill sets necessary to develop and provide leadership in the medical, academic and community arenas.

*1) Internships*: The cornerstone of the summer program (typically for students between their junior and senior year) is participation in either one of the two six-week internships. Students rotate through the clinical practices of CAPE faculty and participate in inpatient rounding, outpatient clinics, and any didactic sessions that occur during the students' time with their respective physicians.

*2) Journal Club*: Students participate in a journal club. Each student reads assigned articles and participates in formal weekly discussion sessions.

*3) Weekly Invited Speakers Luncheon*: Each Friday an invited speaker discusses his/her professional activities at Duke University Medical Center. In particular, female attending physicians are asked to discuss their activities and how they balance the many hats that a female physician wears. Female faculty members serve as outstanding role models for CAPE students.

*4) Weekly Teaching*: CAPE faculty teaches weekly sessions which address the essentials of clinical medicine, including history and physicals, specific diseases, and symptom complexes.

## Timeline

CAPE operates on an academic year schedule – that is, students enter the program at the beginning of each school year. Assuming ongoing success in their program participation and satisfactory academic performance, they are eligible to continue as members of the program through their undergraduate studies and, in some instances, beyond. However, participation in CAPE is considered a privilege which is extended after the applicant successfully demonstrates their initiative, commitment and appropriate choice of pre-medical curriculum. This privilege can and will be revoked if the

commitment and performance (including good academic achievement in pre-medical coursework) do not continue.

#### CAPE Alumni Mentors

CAPE graduates, upon acceptance to medical school, are enrolled in CAPE Alumni Mentors (CAM), with the anticipation, expectation and obligation to mentor CAPE students as well as CAPE graduates who subsequently attend a CAM members' medical school. This ever-increasing team is a sustained mentoring resource for CAPE undergraduates as well as CAM members in medical school, residents and faculty positions.

#### **Program sustainability**

CAPE has been established as a sustained program that links Duke's undergraduate and medical campuses. Strong faculty support at the leadership level ensures the program's continuity. Drs. Henry Friedman and Allan Friedman are both endowed professors who intend to support and lead CAPE throughout their careers and to train suitable replacements when they retire in 15+ years. During their tenure, they will continue to secure sufficient funding from individual donors, foundations and governmental and other sources to support the program and ensure its excellence.

#### **Conclusion**

Given the fast pace and intense pressure of modern day Medicine, it is crucial to attract into medical schools not only the most intelligent and academically successful undergraduates but also those who have the personal wherewithal to rise to the top of their research or clinical spheres. The difficult-to-measure "success factors" in Medicine – characteristics such as motivation and determination, efficiency, focus, and communication and cooperation skills – are the same attributes that are essential for outstanding performance in team athletics.

**A significant number of academically superior female collegiate athletes at Duke have potential interest in medical careers. By further directing their energies into Medicine, and by supporting their dreams for medical careers, CAPE can make a great difference in these young women's lives and can also positively impact developments in the medical profession. CAPE aspires in this manner to improve on a national scale the quality of medical care and the caliber of medical research.**