

# Pre-Medicine

Here at Cornell College, we go beyond providing the education students need to succeed in medical school; through Dimensions, our purposeful academic enrichment program, we help them navigate the complex tasks of preparing for and applying to medical school.”

*Jai Shanata, director, Dimensions Program for Health Professions*

The pre-medicine program at Cornell College is designed to help students identify both prerequisites for admission to medical school and meaningful cocurricular experiences in and out of the medical field. It is coordinated by the Dimensions Program for Health Professions.

Many pre-medicine students major in biology, chemistry, or biochemistry and molecular biology (BMB) at Cornell College.

Most Cornell graduates accepted to medical school in recent years were BMB majors. Many had a double major in an area outside of the natural sciences. That combination can strengthen an application because it will help meet the prerequisites of medical schools and sets the student apart from other applicants.

#### **APPLYING TO MEDICAL SCHOOL**

Admission into medical school is an incredibly competitive process, and Cornell students do well above national averages. From 2008-2015 the national admission rate into medical school for M.D. and D.O. programs was just 41 percent, while Cornell's medical school acceptance rate is 75 percent over the same time period (based on latest data available).

Medical schools today are looking for well-balanced applicants. Most medical schools offer a holistic review of medical school applications meeting the minimum GPA and MCAT score. Holistic review is an individualized way of assessing an applicant's capabilities

by which balanced consideration is given to experiences, attributes, academic metrics, and, when considered in combination, how the individual might contribute value as a medical student and physician.

Cornell's pre-medicine advisers help prepare students for the process and, when it comes time to apply, will assist every step of the way.

#### **DIMENSIONS PROGRAM FOR HEALTH PROFESSIONS**

The Dimensions Program for Health Professions helps students prepare for successful careers across the health professions. Our students integrate the scientific knowledge they require to do well in medical programs with the humanistic and practical knowledge they will need to work with patients and to become successful health care providers.

While at Cornell, students come to understand the importance of empathy and communication, of discipline and creativity, and of individual initiative and teamwork associated with any successful health care career.

Dimensions supports a wide range of opportunities in and beyond the classroom, including interdisciplinary courses, research opportunities, internships at leading institutions, workshops and seminars, assistance with MCAT and graduate school preparation, and more. The program is supported by a full-time associate director and a faculty director.

#### **BENEFITS OF ONE COURSE AT A TIME**

The One Course curriculum allows for intensive study in every aspect of study—labs last for a whole block without interruption and small classes mean easy access to faculty and interactive group work. Each classroom

## Faculty Bios & Courses

### **JEFF CARDON**

*Professor of Biology and Chemistry*

Teaches courses in biology, biochemistry and molecular biology, and chemistry, including Cell and Molecular Biology, Microbiology and Organic Chemistry. Ph.D., UCLA; B.S., University of Utah.

### **BARBARA CHRISTIE-POPE**

*Professor of Biology*

Teaches courses in biology, and biochemistry and molecular biology, including Neurobiology, Immunology, and Human Anatomy and Physiology. Ph.D., University of South Alabama; B.S., University of Oklahoma; B.S., University of South Alabama.

### **MARTY CONDON**

*Professor of Biology*

Teaches courses in biology and biochemistry and molecular biology, including Biological Problems, Diversity: an Evolutionary Perspective, Evolution, and Plant Morphology. Ph.D., University of Texas; B.S., University of Michigan.

### **CHARLEY LIBERKO**

*Professor of Chemistry*

Teaches courses in organic chemistry, Chemical Principles I and II, and nonmajor courses such as Chemistry of Artists' Materials. Ph.D. in organic chemistry, University of Minnesota; B.A., College of St. Thomas.

### **ANDY MCCOLLUM**

*Professor of Biology*

Teaches courses in biology and environmental studies, including Animal Behavior, Entomology, Ecology, and Conservation Biology. Ph.D., Duke University; B.S., North Carolina State University.

### **TAMMY MILDENSTEIN**

*Assistant Professor of Biology*

Mildenstein joined Cornell in 2014 and is a conservation biologist. M.S. and Ph.D. in wildlife biology, University of Montana, Missoula; B.S. in Electrical Engineering, Iowa State University.

becomes a micro-community where students get to focus, discuss, and question the material to facilitate deep understanding. That's true whether the class is an intensive lab science course, a social science discussion, or a survey of historical literature.

#### STUDENT RESEARCH

Dimensions provides funding for students to work alongside active researchers in the biomedical sciences and to intern alongside health care professionals. Our students have researched and interned in:

- Neuroscience at the University of Chicago
- Biotechnology at the University of Maryland
- Nutrition and pediatrics at the Baylor College of Medicine
- Chemistry at the Mayo Clinic
- Pediatrics and orthopedics at the Children's Hospital in Aurora, Colorado
- Cardiology, neuroscience, and pharmacology at the University of Iowa Carver College of Medicine
- Health care administration at Catalysis (previously the Thedacare Center for Health Care Value)

#### CORNELL HEALTH PROFESSIONS SOCIETY (HPS)

Our students run an active Health Professions Society (HPS) that meets monthly and brings health care speakers to campus and participates in service projects. HPS and Dimensions, along with Cornell's chapter of the National Biology Honor Society, sponsor Hilltop events such as blood drives, and educational programs such as Heart Day and Brain Awareness Day. In fact, Cornell College is one of the international sites used for observance of Brain Awareness Week.

#### INTERNSHIPS/FELLOWSHIPS

Graduate medical programs in the health sciences are particularly interested in students who have experience in their chosen health care field. Dimensions helps Cornell students find internships and job shadowing opportunities that allow them to fully explore potential. Since 2005, at the invitation of Operation Walk founder Dr. Lawrence D. Door '63, Cornell students have regularly assisted on Operation Walk missions in countries such as Cuba, El Salvador, Peru, Vietnam, and China.

Students have completed undergraduate internships around the world:

- Baylor College of Medicine, Houston, Texas
- Mayo Clinic, Rochester, Minnesota
- University of Iowa Carver College of Medicine, Iowa City, Iowa
- University of Iowa College of Public Health, Iowa City, Iowa
- University of Chicago Medical Center, Chicago, Illinois

- New York City Medical Examiner's Office, New York City, New York
- Community Health Center of Central Missouri
- HELPS International, Guatemala
- St. Luke's Hospital, Cedar Rapids, Iowa
- Maine Medical Center Research Institute, Scarborough, Maine
- University of Minnesota, Minneapolis, Minnesota
- University of Iowa Department of Pediatrics, Iowa City, Iowa
- University of Minnesota Department of Urology, Minneapolis, Minnesota
- Mercy Medical Center, Cedar Rapids, Iowa
- University of Colorado, Anschutz Medical Campus, Aurora, Colorado

#### AFTER CORNELL

Physicians earn some of the highest salaries in the American workforce. Salaries vary widely depending on speciality and geographic location. According to the Bureau of Labor Statistics, median salaries range from \$241,273 for primary care doctors to \$411,852 for medical specialists.

#### MEDICAL SCHOOLS ATTENDED

M.D., University of Texas Southwestern Medical School, Dallas, Texas (Class of 2016)

M.D., Medical College of Wisconsin, Milwaukee, Wisconsin (Class of 2015)

M.D., University of Missouri, Columbia, Missouri (Class of 2012)

M.D., Florida International University Herbert Wertheim College of Medicine, Miami, Florida (Class of 2011)

D.O., Des Moines University College of Osteopathic Medicine, Des Moines, Iowa (Class of 2010)

M.D., University of Iowa Carver College of Medicine, Iowa City, Iowa (two members of Class of 2010)

D.D.S./Ph.D., University of Michigan, Ann Arbor, Michigan (Class of 2009)

#### CAREERS

Physician assistant at Allina Health MD CARE, Minnetonka, Minnesota (Class of 2011)

Doctor of Osteopathy, University of Wisconsin Department of Family Medicine, Appleton, Wisconsin (Class of 2010)

Physician assistant, Lone Tree Medical Center, Hastings, Nebraska (Class of 2007)

Genetic counselor, Minnesota Department of Public Health, Minneapolis, Minnesota (Class of 2007)

Otolaryngology resident, University of Minnesota, Minneapolis, Minnesota (Class of 2007)

Production scientist, Integrated DNA Technologies, Coralville, Iowa (Class of 2006)

#### BRIAN NOWAK-THOMPSON

*Associate Professor of Biology and Chemistry*  
Teaches courses in biology, chemistry, biochemistry and molecular biology, and environmental studies including Chemical Ecology, Foundations: Cellular Biology, and Biochemistry. Ph.D. and M.S., Oregon State University; B.S., Northland College.

#### JAI SHANATA

*Assistant Professor of Chemistry, Director of Dimensions Program*  
Teaches courses in Organic Chemistry, Chemical Principles I and II, and an advanced topics course in pharmacology and chemical biology. Ph.D. in chemistry, California Institute of Technology; B.A., Cornell College.

#### CINDY STRONG

*Professor of Chemistry*  
Teaches courses in analytical chemistry, inorganic chemistry, and Chemical Principles I and II. Ph.D. in chemistry, California Institute of Technology; B.A., Whitman.

#### CRAIG TEAGUE

*Professor of Chemistry*  
Teaches courses in physical chemistry, Chemical Principles I and II, and other courses. Ph.D. in chemistry, University of Illinois at Urbana-Champaign; B.S., Missouri State University.

#### CRAIG TEPPER

*Professor of Biology*  
Teaches a range of courses in biology, including Genetics and the BMB elective Developmental Biology. He regularly leads a section of the Biological Problems capstone course in the Bahamas and Belize. Ph.D., Utah State University; M.S., San Diego State University; M.A., Indiana University; B.A., University of California, Santa Barbara.