

Creating Futures

University of Colorado *at Boulder*



College of Arts & Sciences

Department of Integrative Physiology

As we age, many of our organs will fail. How do these failures increase our vulnerability to disease, and how can we delay the deterioration of the elderly?

By many measures, our world has become more stressful. How can we maintain our mental and physical well-being, and increase our ability to cope with life's stressors?

The Integrative Physiology department at the University of Colorado at Boulder is exploring the answers to these questions, educating promising young minds for futures in health-oriented fields. You can help this pioneering CU program by supporting learning opportunities for students, and research and teaching support for faculty.

Together, we'll accelerate the discovery and dissemination of new biomedical knowledge, at CU and beyond.

A Long Way in a Short Time

When CU-Boulder established the integrative physiology major in 2003, it was the first in the U.S. to bear that name. But the field—in which cellular and molecular observations are linked to the health and function of whole organisms—is growing fast. In just six years it has become the university's second-largest major, with 1350 undergraduates as well as burgeoning masters and doctoral programs. The closest thing to a medical curriculum at CU-Boulder, integrative physiology provides an outstanding foundation for future doctors and nurses, and a firm basis for varied health professions and pursuits.

The program's breadth and flexibility makes it popular among students, who can adjust their plans midstream to pursue their passions and explore new developments in fast-changing health disciplines. So does its faculty, whose research has attracted grants from the American Heart Association, the National Institutes of Health, and the National Science Foundation. The department ranks 14th nationally in faculty research grants, primarily competing with medical school physiology departments.

With the health care industry expected to grow by double the rate of other industries through 2014, we need to educate new health professionals now. Integrative physiology at CU-Boulder is helping to fill the gap.



*After five years working with Spanish-speaking, indigent, and uninsured patients, 2003 integrative physiology graduate **Karyn Zorn** is attending medical school, and aims to practice primary care medicine in an underserved area of New Mexico.*

continued on back



"I donate to integrative physiology because I believe in providing opportunities to our students. We hope to achieve our ambitious goal of 100 percent faculty-donor participation."

Roger Enoka
Chair

Department of Integrative Physiology

To learn about the many ways you can make a gift:

Contact Mary McGee

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Colorado
University of Colorado at Boulder

All gifts should be payable to the University of Colorado Foundation, specifying the appropriate fund.

Working to Solve Our Era's Pressing Problems

With Baby Boomers entering their 60s and 70s, increasing demands on the health care system, and turbulent changes everywhere we look, the themes of aging and stress have become important areas of study. CU-Boulder's integrative physiology faculty are researching:

- **How aging affects the cardiovascular system, and how we might delay or prevent arterial aging** at the integrative physiology of aging lab, directed by college professor of distinction Douglas Seals
- **How disturbances in sleep impact health and performance** at the sleep and chronobiology lab, directed by associate professor Kenneth Wright
- **How exercise may buffer negative consequences of stress, and possibly diminish susceptibility to disease** at the neuroimmunology lab, directed by professor Monika Fleshner

You Can Help

Students: Our goal is to open up research projects such as those listed above to every student who wants to take part, including undergraduates. Research experiences can help admission prospects for graduate school, and connect students' classroom knowledge with new ideas. But our current capacity to accommodate undergraduate research is insufficient to support the demand.

You can donate **research stipends** to help more students to participate in these projects, **graduate student fellowships** to support dissertation research, or **travel awards** to enable students to present findings at conferences and learn more about new developments in the field.

Faculty: Our department is only as good as its faculty. To recruit and retain the field's top educators and researchers, we must support their innovation and dissemination of new ideas.

You can donate toward **exploratory research** that enables faculty to develop raw ideas into viable projects that are fundable by federal grantors, or by establishing a named professorship that would enhance the research capabilities of leading faculty and reward distinguished work.

Giving Opportunities

We are grateful for any level of support you can manage, either current gifts that can give a boost to today's projects, or endowed gifts that ensure ongoing financial support for integrative physiology. Guidelines for specific opportunities include:

- Stipend for undergraduate research, \$1,000
- Travel award for a student, \$1,200
- Stipend for summer research, \$2,400
- Fellowship for dissertation research, \$35,000
- Exploratory faculty research, >\$25,000
- Named undergraduate scholarship, \$50,000
- Named graduate fellowship, \$200,000
- Named professorship, \$1,000,000

Make a Difference Today

With your support of the Department of Integrative Physiology, we can redouble our efforts to enable your friends and neighbors to live longer, healthier, happier lives. Join us on this important endeavor.