THE UNIVERSITY OF IOWA GRADUATE COLLEGE | JOHN C. KELLER, DEAN

GRADUATE College



A debt of gratitude and a fond farewell to Dean Sandra Barkan.

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Dean Sandra Barkan To Leave the UI

After over 20 years of outstanding service, Sandra Barkan will leave The University of Iowa for Washington, D.C. this coming summer.

Currently Associate Dean in the Graduate College, Dean Barkan also serves as a member of the UI faculty in the Department of Cinema and Comparative Literature. During her time at Iowa, she was the Interim Director of the International Writing Program and served as the Executive Director of the Honors Program.

In addition to these accomplishments at Iowa, Dean Barkan has been a devoted mentor for students pursuing national and international scholarships and fellowships, including several successful applications for Rhodes Scholarships and Fulbright Fellowships.

UI students, alumni, and colleagues comment on Dr. Barkan's vision, focus, and integrity in serving UI scholars. Her mentoring is marked by generosity, as she quietly gives students of her time, undivided attention, and resources. Many remark on her ability to find and nurture scholars who go on to fulfilling careers that enrich the lives of others.

On behalf of The University of Iowa, the entire Graduate College expresses gratitude to Dr. Barkan for her years of excellent service and sends many well wishes for her future.

...more about Dean Barkan...page 2

YEARS OF UI SERVICE

1985-1991	Visiting Assistant Professor, Literature, Science, and the Arts
1991-present	Faculty Member, Department of Cinema and Comparative Literature (special interest in African literatures)
1987-1992	Associate Director, Honors Program
Fall 1992 & 1989	Acting Director, Honors Program
1992-1995	Executive Director, Honors Program
1999-2000	Interim Director, International Writing Program
1995-2004	Assistant Dean, Graduate College
2004-present	Associate Dean, Graduate College



THE UNIVERSITY OF IOWA

...cont. from page 1 Barkan To Leave The UI



"Dr. Barkan's special gift has been her ability to mentor students, many of whom continue to seek her guidance on personal and professional issues long after graduation. She unfailingly cheers them on, and often inspires them to achieve a higher goal than the one to which they originally aspired."

David J. Skorton Former President The University of Iowa President, Cornell University Ithaca, New York

"Sandy's affirmation of those of us committed to social change, while often challenging to our peace of mind and our pocketbooks, has helped many of us to believe in the legitimacy of activism in a society that urges us to climb the corporate ladder."

Rima Vesely-Flad

UI alumna (journalism/mass comm.) 1997 Fulbright Scholar 1997-98 Director, ICARE (Interfaith Coalition of Advocates for Reentry and Employment) New York, New York





"Dr. Sandra Barkan is an extraordinary woman who has done tremendous good for the University and its members. She believes in the school and community and acts selflessly for its benefit. She believes in the people she works with, and works hard to help them because it's the right thing to do, not because they can help her in return."

Andrew P. Wildenberg

UI alumnus (computer science) 1992 Rhodes Scholar 1993 Faculty member at Cornell College Mount Vernon, Iowa

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GRADUATE College

Interdisciplinary study at Iowa Immunology

Only decades ago, life-threatening diseases like polio were still feared. Smallpox was eradicated only as recently as the 1970s. Today, immunizations prevent deaths and illnesses, and continued research has led to a greater understanding of disease control.

We've seen tremendous progress, but the world is not yet rid of malaria, AIDS, cancer, asthma, and many other ailments. Much about human immunology remains a mystery, and researchers work to answer a wide range of questions about the human body's defenses against disease.

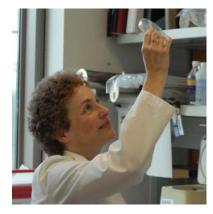
Immunology has been an important area of biomedical research at The University of Iowa for many decades. Although the list of immunologists working at this institution has varied, there has been a steady and continuing growth of immunology and immunologists working in many different basic science and clinical departments.

"The University of lowa's Interdisciplinary Immunology program is helping to unlock remaining mysteries of the immune system and find solutions for people who suffer from various cancers, MS, asthma, and other autoimmune diseases." This growth was accelerated by the initiation in 1993 of the Immunology Graduate Program, an NIH-funded predoctoral training program that awards the PhD degree in Immunology. The program currently contains 30 faculty members and 27 graduate students who work in laboratories in six different home departments, including Microbiology, Pharmacology, Pathology, Internal Medicine, Pediatrics, and Urology.

The location of their laboratories within close proximity enhances the frequent collegial and collaborative interactions that have long characterized research at the UI. "As a result, although immunologic research at Iowa is notable for its breadth and diversity, a variety of common themes weave together the many individual research programs," says Dr. Gail Bishop, director of the Immunology Graduate Program and a former Graduate College Outstanding Mentor Award winner.

Projects include basic research on various cells and processes involved in immune regulation, as well as applications to infectious disease, cancer, autoimmunity, and transplantation.

This interdisciplinary nature of the UI's Immunology program opens opportunities for breakthrough findings. Such innovative research is important in ongoing investigations that can help unlock remaining mysteries of the immune system and find solutions for people who suffer from various cancers, MS, asthma, and other autoimmune diseases.



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Dr. Gail Bishop is the Director of the UI Interdisciplinary Immunology Graduate Program.

Her research lab studies molecular mechanisms of lymphocyte activation. By working to understand how cells communicate with one another and their environment, the Bishop lab addresses questions of how normal immunity, autoimmunity and malignancy are regulated.

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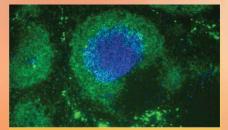
CELLULAR STUDIES

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...researching the cells of the immune system, and the processes and/or receptors and molecules that are used by these cells

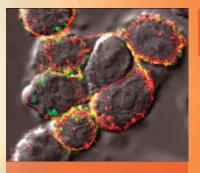
Immunology research at Iowa covers the gamut of cells of the immune system, with a focus on properties of particular types of B lymphocytes, T lymphocytes, myeloid cells, NK cells, and platelets.

Dr. Thomas Waldschmidt's lab in Pathology studies bone marrow transplantation, B cell development, and germinal center reaction. "The research in my laboratory is centered on



The microanatomy of the germinal center (GC) within the spleen of an immunized mouse.

the biology of B lymphocytes. We are interested in many aspects of this population including their development, subset distribution, function, and differentiation in germinal centers. We are further analyzing their reconstitution and function after bone marrow transplantation and their abnormal behavior in disease states."



Normal T cells will only survive for a short time outside the body in a laboratory dish. Hybridoma technology allows fusion of experimental T cells with an immortalized cell type, and then these immortalized T cell hybridomas can be cultured for long periods, frozen for storage and revived for future studies.

SYSTEMIC STUDIES

...researching the function of the immune system in diseases states

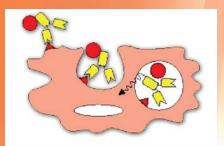
The function of the immune system has relevance to virtually all types of human diseases. From basic studies on lymphocyte activation and death and cellular growth controls to specific antitumor therapies, many of the ongoing projects at the UI have novel implications for understanding and treating various types of malignancies.

Dr. Elizabeth Field's lab in Internal Medicine studies immunologic tolerance, and transplantation immunology. *"Research in the Field laboratory addresses the mechanisms of immunological tolerance. The current projects focus on elucidating the mode of action of regulatory T cells, a specialized subset of T lymphocytes that function to regulate the balance between tolerance and immunity."*

Dr. David Lubaroff's lab in Urology studies

tumor immunology and immunotherapy. "The research in this laboratory focuses on tumor immunology and immunotherapy with an emphasis on the development of therapeutic vaccines for prostate cancer."

Other projects in Dr. Luaroff's lab involve basic science investigations and animal models of chronic inflammatory and autoimmune diseases, as well as issues of tolerance and immune manipulation related to transplantation. Interactions of the immune system with both normal gut microflora and pathogenic bacteria and viruses are also actively studied in the program's various laboratories.



A Trojan horse strategy: Y-shaped immune molecules carrying a radioactive "tag" specifically bind to markers on a tumor cell. The tumor cell internalizes the immune molecules, and the radiation from the "tag" kills the tumor cell.

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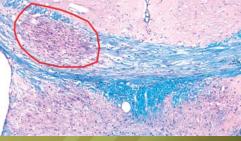
RECEPTOR STUDIES

...investigating immune receptors (parts of cells that are responsible for the stimulation and regulation of cell function)

Many types of immune receptors are studied by investigators at The University of Iowa. These include lymphocyte antigen receptors and their costimulators and regulators. Other immune receptors under investigation include complement receptors and cytokine receptors.

Dr. Brian Martin's Lab in Microbiology studies the role of inflammatory complement proteins in neuroinflammation and eye disease. "The complement system is one of the first immune response pathways activated when pathogens invade the body. Molecules in the complement system are critical for immune protection, but in some cases, these proteins can contribute to autoimmune disease. We study two diseases in which complement contributes directly to pathology: Multiple Sclerosis and age-related macular degeneration."

A number of researchers investigate the effects and mechanisms of action of various receptors. Current studies examine effects of both immune stimulatory and inhibitory effects of receptors on immune cell activation and function. Some studies in this area focus on the disease models of asthma and lymphoma.



Insulation on an electrical wire allows faster travel of the electrical signal and prevents short-circuits when wires touch each other. Similarly, myelin insulates our nerve circuits. In multiple sclerosis, the immune system attacks the myelin and destroys this insulation around nerves. A blue dye marks the myelin, and loss of the blue stain shows where myelin has been destroyed.

WHAT'S IN IT FOR THE STUDENTS?

Faculty

The faculty's research interests cover many areas of Immunology, while retaining a focus on Immunology itself. The student takes courses that are focused in this area, but can interact with, and choose as a dissertation mentor, faculty working on many possible research projects.

Relevant skill formation

Immunology coursework emphasizes criticalthinking skills, so the courses taught, while having high expectations of the students, do not require lots of memorization or multiple-choice tests, but include considerable faculty-student discussion and interaction. Students learn career-relevant skills of hypothesis formulation, experimental design, and data interpretation.

Professional development opportunities

The Program works hard to maximize student opportunities to learn career-enhancing skills of communication and interaction with other scientists. Each fall, the program supports the travel of all its students to the Autumn Immunology Conference in Chicago. In addition to excellent plenary sessions, this meeting allows students not only to present posters, but also to give a short workshop talk.

Direct access to scholars in the field

Another unique aspect of the program is its seminar series. Unlike other series, which stop during the summer, the Interdisciplinary Immunology seminar series is year-round. The majority of speakers are from outside the University of Iowa.

Most of the seminars are held in conjunction with a dinner hosted by UI faculty at his/her home, to which all immunology students and fellows are invited. Rather than inviting guest lecturers to the traditional "dinner with faculty," students are given primary access to the guest (the only faculty present is the host), to talk science, ask career questions, etc. Several students have found postdoctoral mentors through these dinners.

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Letter from the Dean

Graduate education at The University of Iowa is complex and often difficult, and that's a good thing!

In an increasingly complicated world, it's often easier, and sometimes appropriate, to simplify. But acknowledging and diving headlong into difficulty can also help us expand our knowledge and alter our views of the world. As academics, we strive for a balance between the two approaches. After all, learning is about adding and reassembling layers of knowledge, admitting what we don't yet know, and acknowledging complexity without allowing paralysis to set in.

Because of this, graduate education makes a worthwhile difference. It thrives at The University Iowa because of the efforts of our graduate students, faculty, and administrators, who work hard to maintain excellence in research, creativity, and scholarship across our campus-wide programs.

RECOGNIZING OUR ADMINISTRATORS

I'm taking this opportunity to thank all who work hard to support our graduate education mission. In this issue of Graduate College News, you can read about **Dean Sandra Barkan**, who will be leaving us after over 20 years of cultivating graduate scholarship at Iowa.

Sandy has been a strong advocate for the humanities and international studies campus wide. She has actively encouraged a global view, recognizing the impact on each discipline, as well as the positive effect on our graduate students' personal growth. Her vision inspires many to see the immense value of graduate education. Sandy, you will be greatly missed as a colleague and a friend.

THANKING OUR DONORS

We are also fortunate to have the growing support of our **Graduate College donors**. Without their assistance, we could not provide funding for key programs. Among those are our interdisciplinary programs, such as the Immunology PhD program highlighted in this newsletter. Many thanks to all our donors for their generous contributions. Please know that your support helps us guide our scholars through the rigors of their graduate programs toward substantial contributions in their disciplinary fields.

Appreciating our Scholars

Finally, I want to thank our **graduate students and faculty**, who, through their scholarly endeavors, face difficult questions, solve problems, and enrich our communities. Whether searching for information about human immunology or seeking to understand the impact of cultural context on daily life, UI graduate researchers find answers that change our world. These are not always easy, quick answers; mostly they are hard-won solutions, ideas, and questions that address genuine human concerns and illuminate possibilities for further investigation.

The University of Iowa is a remarkable place to work on behalf of graduate education, and we are thankful for the opportunity to serve.

Sincerely,

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John C. Keller Associate Provost for Graduate Education Dean, Graduate College



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Honor Roll of Graduate College Contributors

This honor roll gratefully recognizes alumni and friends who contributed \$100 or more from January 1, 2005, through June 30, 2006, to the Graduate College through The University of Iowa Foundation, the preferred channel for private support of all areas of the University.

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Contact the UI Foundation

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The University of Iowa Foundation P.O. Box 4550 Iowa City, Iowa 52244-4550 (319) 335-3305 or toll-free (800) 648-6973

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The University of Iowa

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- Contributors of \$100 or more to the Graduate College are recognized in *Graduate College News*.

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