

TOUCHING LIVES

COLLABORATIONS

in Clinical Service, Education and Research



The First 10 Years of the
DEPARTMENT OF DERMATOLOGY
at the University of Wisconsin School of Medicine and Public Health

TABLE OF CONTENTS

A Welcome from our Chair: The Power of Collaboration.....	Inside front cover
Looking Back at a Decade of Dermatology.....	2
Clinical Service: Patient Care Through Partnership.....	3
Education: Teaching and Teamwork	6
Research: Discoveries That Make a Difference	8
Clinical Trials.....	10
Faculty and Staff	11
Philanthropy: Gratitude Meets Generosity	12
Department Snapshot.....	14
Publications.....	15

A WELCOME FROM OUR CHAIR: THE POWER OF COLLABORATION

Welcome to the Department of Dermatology's 10-year review. We achieved departmental status on July 1, 2002. I'm proud to celebrate a decade of exceptional growth and achievement here with you.



Gary S. Wood, MD

Since 2002, we've grown from an eight-faculty division providing general dermatology services at a few outpatient locations to a 24-faculty independent department with many subspecialties practicing in nine different clinics throughout Madison. Our clinical charges have increased from approximately \$5M in 2002 to over \$43M in 2012, and our clinical revenue has increased from \$2M in 2002 to almost \$15M in 2012.

Our education program began with six residents in one track. Now, we train 14 residents in two tracks plus an advanced fellow, are well integrated into the medical student curriculum, advise graduate and PhD students, and are one of only a few dermatology programs in the nation to offer a National Institutes of Health (NIH) T32 postdoctoral

training program. Modest research activities in 2002 have grown into a \$15M program ranked #8 by the NIH in 2011.

What's driven our success? One key factor is **collaboration**: the crucial interplay between our clinical, educational, and research efforts.

For example, increased faculty and patient volume means we can offer specialized services at dedicated clinics. Then, in our education programs, we can use these subspecialty clinics to efficiently expose students, residents, and fellows to more patients with acute and complex conditions, which also improves clinical care over the long term.

A robust clinical and educational infrastructure, in turn, enriches training opportunities for the many doctoral and postdoctoral trainees who seek out our faculty as advisors. Those trainees work alongside established investigators who are among the top-funded dermatology researchers in the nation. In addition to their groundbreaking laboratory work, they conduct patient-based studies that aim to find better treatments for skin cancers and other cutaneous diseases.

With this demonstrated commitment to research, and the patient base to support it, we are better positioned to secure continued grant funding for our work.

Collaborations also reach beyond our department into our healthcare system, campus, nation, and world.

At the UW Carbone Comprehensive Cancer Center, our faculty are an integral part of clinical teams that, together with medical, radiation, and surgical oncologists, provide multidisciplinary care for patients with skin cancer. Vice Chair for Research **Hasan Mukhtar, PhD**, also co-directs the chemoprevention research program there.

Dermatology faculty provide clinical services, including Mohs surgery and dermatopathology, for the VA hospital in Madison and general dermatology services in Tomah. An outstanding "incubator" for physician learning, the VA service has become a cornerstone of our resident education program.

On the local academic front, our faculty are peer reviewers for pilot grants seeking funding through the School of Medicine and Public Health's (SMPH) Institute for Clinical and Translational Research. They also train pediatrics and internal medicine residents who are completing rotations in dermatology, have leadership roles on many SMPH committees, and serve as reviewers for the UW Institutional Review Board.

Across campus, our faculty mentor PhD students from several interdisciplinary programs housed at the SMPH, the College of Agriculture and Life Sciences, the School of Veterinary Medicine, and others.

Our faculty also hold leadership positions at the Wisconsin Dermatological Society and many national and international professional societies.

They serve on the editorial boards of dozens of journals, and are on review panels for the NIH and other funding agencies.

All of these activities demonstrate the power of collaboration: when our clinical, educational, and research missions elevate one another and create a whole that's greater than the sum of its parts. That's how we advance the **Wisconsin Idea**: by strategically combining all of our resources to improve the lives of our fellow citizens.

In addition to thanking our dedicated faculty and staff for making us the premier dermatology program that we are today, I want to express our gratitude to everyone whose strong support has made our achievements possible: SMPH Dean Robert Golden, MD; former SMPH Dean Philip Farrell, MD, PhD; UW Medical Foundation CEO Jeffrey Grossman, MD; UW Hospital and Clinics CEO Donna Katen-Bahensky; and their leadership teams. I am honored to direct this exceptional department, and I look forward to our continued progress.



Gary S. Wood, MD
*Geneva F. and Sture Johnson
Professor and Chair*

LOOKING BACK AT A DECADE OF DERMATOLOGY



George Reizner, MD

A decade ago, dermatology at UW-Madison turned a corner. We were a newly formed department, with a new chair at the helm, and embarked on a journey that has taken us further than we imagined. Now, we look back at the path we've walked, and remember the milestones we've passed along the way.

We've always provided world-class dermatology services for our patients. But in the past 10 years, we've tripled our faculty and added specialty

services in such areas as contact dermatitis, psoriasis, cutaneous lymphomas, dermatopathology, and psychocutaneous medicine. Deeper clinical capabilities mean even better care for patients, and more learning opportunities for trainees.

Our educational efforts expanded to include a stronger presence in the medical school curriculum, a combined internal medicine/dermatology residency, an ACGME-accredited procedural fellowship, and a NIH-funded research training program. We've cemented our reputation as an outstanding place to train and attract high-caliber applicants every year.

Our research activities have evolved into a full-fledged, cohesive program that includes a full spectrum of basic, translational, and clinical projects focusing on cancer and skin diseases. We're proud of our research productivity and even more proud of our work's potential to help our patients live better lives.

As we set our sights on the next 10 years, I'm confident that our commitment to collaboration will steer our growth. Here's to the next decade of dermatology!

—George Reizner, MD

MOHS LEADER STEPHEN SNOW, MD, RETIRES

Stephen Snow, MD, whose leadership helped make Mohs surgery the international standard for removal of non-melanoma skin cancers, retired in 2012 after 30 years at UW-Madison.

Dr. Snow was one of Dr. Frederic Mohs' first trainees in 1981, and his commitment to Mohs surgery helped establish the procedure as the standard of care around the world. He gave over 90 presentations; published over 70 articles, 22 chapters, and four books; trained almost 40 fellows; and helped physicians in China and South America establish Mohs clinics. He held leadership positions in national and international Mohs societies, and will continue to publish and teach in retirement.

Dr. Snow's team approach to managing the Mohs/Dermatologic Surgery practice made him one of the most efficient physicians at UW Health. More importantly, the Mohs West Clinic consistently received strong patient satisfaction ratings with the highest rating in UW Health in the April to June 2012 survey. The compassion he brought to every patient encounter is reflected in his own words: "My greatest source of satisfaction has always been patient care. Having witnessed firsthand their strength, courage and grace under pressure, I have become inspired by the indomitability of the human spirit."

Although Dr. Snow began his UW career under the mentorship of one of the giants of dermatology, he left his own indelible marks on the lives and careers of thousands of patients and physicians.



Stephen Snow, MD (left) pictured
with Gary S. Wood, MD

CLINICAL SERVICE: PATIENT CARE THROUGH PARTNERSHIP

Over the past 10 years, our clinical services have grown beyond all expectations. We're expanding existing subspecialties and adding new ones, and forging even deeper relationships with colleagues in primary and specialty care. We're also integrating research discoveries and educational opportunities throughout all facets of clinical care.

The prognosis? Continued collegiality, growth, and success—and always the best possible care for our patients.

Specialty Clinics Provide Care and Compassion

We know how challenging life can be for patients with dermatological disorders. Some conditions are life threatening. Others can be managed, but present daily physical and emotional hurdles. In our specialty clinics, we guide patients compassionately through the often life-changing process of diagnosis and treatment.

- **Contact Dermatitis.** Contact dermatitis can substantially interfere with sleep, work, and general quality of life. In our clinic, led by **Rita Lloyd, MD**, we perform extensive testing to identify the condition's causes, which in turn helps us better manage our patients'

symptoms. We also seek patients whose cases are more unique, or who may be affected by workplace exposure.

- **Cutaneous Lymphomas.** Patients with cutaneous lymphomas often have dry patches, scales, or ulcers on the skin that cause severe itching and discomfort. Clothing is uncomfortable, sleep is difficult, and life can be harder to enjoy. Our cutaneous lymphoma program, led by **Gary S. Wood, MD**, now offers patients with the disease a wider variety of treatment options—both FDA-approved and through clinical trials—that improve quality of life and increase long-term survival. For patients with advanced disease, Dr. Wood also works closely with hematologists and radiation oncologists at the UW Carbone Cancer Center to care for patients using a multidisciplinary approach.
- **Dermatopathology.** Led by **B. Jack Longley, MD**, our dermatopathology program has grown considerably in 10 years. An additional faculty member, **Daniel Bennett, MD**, is now on board and our caseload serves all of UW Health, the VA Hospital, regional partners, and outside referrals. Our residents gain valuable diagnostic and consultation experience through hands-on participation in this service.
- **Melanoma.** Melanoma's aggressive nature requires a comprehensive, team-based

continued next page

From Mohs Fellow to Melanoma Specialist: A Reflection

Gloria Xu, MD, PhD, joined the department in 2007 and trained as a Mohs/procedural dermatology fellow. She's since built subspecialty expertise in Mohs surgery, procedural dermatology, and the surgical management of melanoma, and works to raise public awareness of skin cancer prevention and treatment.

Now, Dr. Xu is dedicating time for translational research collaborations. One project evaluated whether an imaging technique used in astronomy can be applied to melanoma detection. Another is investigating molecular pathways of squamous cell carcinoma in transplant patients, and a future project will examine immunological mechanisms in vitiligo.



Doctor's Compassion 'Means the World' to Patient with Chronic Hives

Jennifer Lindskoog has suffered from chronic urticaria, or hives, for 10 years. When her symptoms are most severe, her body, hands, and feet are almost completely covered with rashes. They itch constantly and interfere with sleep, work, and other life activities—including her passion, horseback riding.

Jennifer became a patient of **Rita Lloyd, MD**, six years ago. She was immediately impressed by Dr. Lloyd's desire to examine the root cause of the hives, rather than just relieve symptoms. Together, they tried many drug treatments and identified environmental factors—horseback riding being one—that exacerbated the condition. "Dr. Lloyd was sympathetic and empathetic through all of it," Jennifer recalls. "She really helped keep my spirits up."

Today, Jennifer undergoes twice-weekly UVB narrowband light therapy in combination with antihistamines and occasional steroids. The approach works: the hives on her body are almost completely gone, and although some remain on her hands and feet, she considers it a "completely livable" solution.

Jennifer realizes that there may be no permanent cure for her condition. But she's grateful to Dr. Lloyd for being continually willing to look for treatments that work with her lifestyle. "She experiments, she tries everything, and she said she would never ask me to stop doing what I love," Jennifer said. "That means the world to me."

approach to care. Led by **George Reizner, MD**, and **Gloria Xu, MD, PhD**, our faculty work closely with pathologists and oncologists at the UW Carbone Cancer Center's multidisciplinary melanoma clinic. They provide advanced surgical and medical interventions and work toward better prevention and treatment through education, research, and outreach.

- **Mohs Surgery.** Five faculty (**Juliet Aylward, MD**; **Gloria Xu, MD, PhD**; **Andrew Swanson, MD**; **Eric Berg, MD**; and **William Aughenbaugh, MD**) now staff our Mohs surgery clinic, which provides innovative surgical treatment for skin cancer using a method originally developed by UW physician Frederic Mohs, MD. Dr. Mohs' legacy also lives on through our Mohs/procedural dermatology fellowship, which trains new physicians in the technique each year.
- **Psoriasis.** Patients who have psoriasis—a disorder in which ongoing management and attention to quality of life are key—can now seek treatment at a dedicated weekly clinic led by **David Puchalsky, MD**.



Dr. Puchalsky established specific guidelines for the clinic, which is an integral part of our residency and medical student education programs.

- **Psychocutaneous Medicine.** Diseases of the skin can have an impact on a patient's self-image, causing significant emotional distress. In addition, some psychiatric diseases cause skin manifestations. We are one of the few departments in the nation to have a faculty member, **Ladan Mostaghimi, MD**, dedicated to psychocutaneous medicine. She offers integrated dermatologic and psychiatric services and conducts clinical research on the relationships between skin disorders, emotions, and stress.
- **Transplant Dermatology.** Because skin cancer is one of the leading causes of death in transplant patients, **Erin Vanness, MD**, leads a transplant dermatology program that brings together expertise in dermatology, Mohs surgery, and transplant medicine.
- **Additional Subspecialties.** **Apple Bodemer, MD**, the only board-certified dermatologist in the US who has



also completed a fellowship in integrative medicine, brings a holistic approach to her patient interactions. **Molly Hinshaw, MD**, conducts a twice-monthly nail diseases clinic, the services for which are in high demand.

- **Advanced Practice Providers.** Our nurse practitioners and physician assistant provide high-quality care for more common dermatologic conditions, and are valuable members of our clinical team.

Facing the Future

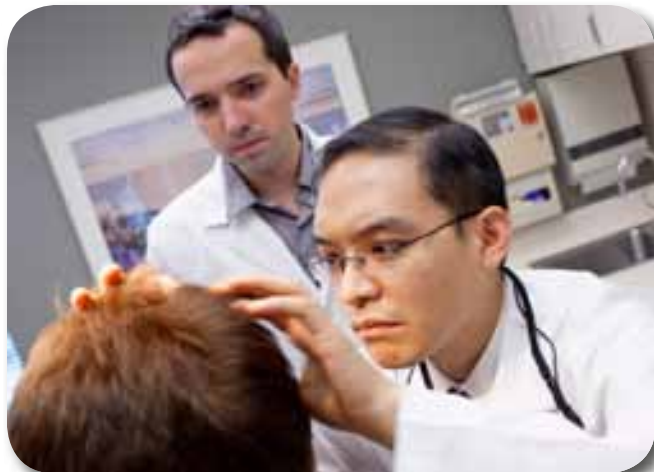
We look forward to many new developments in the coming years. One of our newest faculty, **Justin Endo, MD**, plans to develop a clinical and educational program in geriatric dermatology—a subspecialty that does not yet formally exist. When established, this program will be the first of its kind in the nation to educate residents in the care of a growing population with unique health issues.

As our new faculty develop additional clinical niches in pediatric dermatology and dermatopathology, we will consider adding fellowships in these areas. Our residency

programs will also continue to evolve as we respond to new ACGME requirements and add three residents over the next few years.

In addition, our translational research program will grow as our basic researchers incorporate more human tissue into their studies and expand collaborations with our clinical researchers. We're also optimistic about a Skin Diseases Research Core Center grant that we will submit in 2013. This grant will allow as many as 36 investigators from across the UW-Madison campus to share expertise, techniques, and new equipment as they collaborate in the fight against skin diseases.

With the increasing demand for our clinical services, and the expansion of our educational programs, physical space constraints continue to challenge us. **Anne Rosin, MD**, is one of our faculty who will evaluate telemedicine as a potential solution while we continue to explore the possibility of expanded facilities.



Patient Satisfaction is a Priority for our Clinicians

From a transplant patient at high risk for skin cancer: "**Dr. Vanness** is a very competent, caring physician who prevented a serious illness that could have taken my life. I am very grateful. I am still and will always be high risk for melanoma, but I will continue to work with her to stay healthy."

9

Number of Madison
outpatient locations in 2012

\$15 million

Clinical revenue in 2012,
up from \$2 million in 2002



EDUCATION: TEACHING AND TEAMWORK

At the Department of Dermatology, education has always been more than a set of programs. It's a state of mind, and our way of life. From training future dermatologists in the art and science of patient care, to cultivating the next generation of research scientists, to sharing our expertise with colleagues, the spirit of teaching and teamwork guides everything we do.

Empowering Future Physicians

Through her many years of service on the SMPH admissions committee, **Anne Rosin, MD**, has played a vital role by identifying superior medical students. These students' clinical education begins in the first year of medical school. Our faculty and residents worked together to develop an integrated dermatology course that has been part of the medical school curriculum since 2009. This innovative course introduces foundational dermatology principles, provides the first introduction to clinical disease, and encourages critical thinking among medical students. It also includes a clinical workshop in which students examine patients and learn the impact of skin disease on their lives.

Our residents choose one of two innovative programs: the three-year general dermatology residency or the five-year combined internal medicine/dermatology residency, which was among the first of its kind in the nation.

Under the direction of Vice Chair of Education **William Aughenbaugh, MD**, both residency programs offer comprehensive clinical training in an empowering, collegial environment. Faculty and residents work closely in a variety of clinical settings, including designated continuity clinics, to provide longitudinal, compassionate care for patients with acute and complex disease.

Our faculty's commitment to education extends to residents in other disciplines, including family medicine, general internal medicine, pediatrics and pathology. For example, in 2012, **Joyce Teng, MD**, supervised pediatrics residents in each of her clinic sessions, and **Jack Longley, MD**, and **Daniel Bennett, MD**, have begun leading weekly dermatopathology training sessions for pathology residents.

After completing residency, our graduates have gone on to pursue careers in academic medicine at the University of Pennsylvania, Duke, Stanford, the University of California at San Francisco and San Diego, and other leading institutions. In the coming years, Dr. Aughenbaugh will continue expanding the programs' focus to emphasize quality improvement, leadership development, and interdisciplinary collaboration.

Our one-year procedural dermatology fellowship, commended by the ACGME, has just been reaccredited for five years. It offers advanced training in Mohs micrographic surgery and an array of restorative and cosmetic dermatologic procedures. This fellowship continues the legacy of Frederic Mohs, MD, a UW physician known worldwide for his innovative approach to skin cancer surgery.



Med Students Get Skin in the Game

As part of the Integrated Dermatology course, first-year medical students had a unique opportunity to evaluate actual patients for a variety of dermatological conditions. Patients received examinations free of charge, and students were enthusiastic about the experience.

One student said, "The PDS/Derm small group today with the patients was the single most beneficial hour of my medical training so far. My third-year resident was extremely helpful while being also very down to earth, and all the patients were great. If this type of education were the paradigm for med school, I cannot imagine how much better prepared we would be when we hit rotations next year and board exams. Thank you so much for organizing such a great opportunity for us."



Training Tomorrow's Researchers

Beyond the classroom and clinic, our educational efforts extend into laboratories throughout the department. Undergraduate, graduate, and PhD students throughout the SMPH and UW-Madison seek out our faculty as mentors for their own research.

These collaborations are often the starting point for future biomedical research careers—careers that aim to improve the quality of human life through clinical application.

For example, our faculty are the thesis advisors for graduate students from a number of UW programs, including the Molecular and Environmental Toxicology Center, Cellular and Molecular Biology, Cellular and Molecular Pathology, Molecular and Cellular Pathology, Comparative Biomedical Sciences, and Food Sciences. Future researchers from all over the world—including Egypt, Brazil, Sweden, Costa Rica, Korea, China, Germany and India—also come to our faculty's labs to complete advanced research training.

Since 2007, our department has offered a state-of-the-art, postdoctoral research training program through a National Institutes of Health-funded T32

Outreach Education Around the World

In 2011, **Dr. Aughenbaugh** accompanied two residents, **Lisa Muchard, MD** (now a faculty member), and Margo Bendewald, MD, on a teaching mission to Phnom Penh, Cambodia, through the volunteer organization Health Volunteers Overseas. They taught medical students about dermatologic diseases, which made a lasting impact on health care delivery in this developing nation. They also examined patients and learned from Dr. Sitach May, the only board certified dermatologist in the country.

grant. Faculty partner with colleagues from five other SMPH departments to train four future investigators each year; areas of interest include cutaneous oncology, inflammatory disorders, and molecular dermatology.

Connecting With Colleagues

Collaboration in action is the hallmark of department educational events. Every week, clinical and research faculty come together for Grand Rounds, journal clubs, research conferences or didactic sessions. Research associates attend these events right alongside clinical residents.

Our educational outreach programs provide another wonderful opportunity to broaden professional connections. Physicians from around the region attend our annual Moss Lectureship, during which we invite a noted clinician educator or researcher to address the dermatology community. In addition, we host many visiting professors from across the nation and abroad.

Every year, we also host the spring meeting of the Wisconsin Dermatological Society, and our faculty present at numerous state and national society meetings all year long.

From Resident to Faculty: A Reflection

Looking back on the last four years as a dermatology resident and fellow, **Andrew Swanson, MD**—now the newest member of our faculty—is struck by the department's collegiality and its educational program advances.

As a first-year resident, he immediately felt valued and treated like a colleague. Because of his love for teaching, he was invited to help develop and lecture in the new integrated dermatology course for medical students. But it doesn't end there: practicing dermatology, he said, is all about teaching patients.

"People are here because they love what they do," he said. "**Dr. Aughenbaugh** has made a conscious effort to update the education program, focusing on how people learn, and teaching the requirements in a way that will help them become outstanding clinicians."



RESEARCH: DISCOVERIES THAT MAKE A DIFFERENCE

From humble beginnings a decade ago to a top-ranked, \$15 million program today, research at the Department of Dermatology has never been more robust. Our work, though diverse, has a singular goal: to discover preventions and treatments that make a difference in people's lives—today, tomorrow, and long into the future.

Cancer Biology and Botanicals

Our laboratories include six basic research faculty and more than 35 staff, trainees, and students. Their work is supported by grants from the National Institutes of Health, the Department of Veterans Affairs, the U.S. Department of Defense, foundations, and nonprofit organizations.

Underpinning their efforts is a shared interest in the biological mechanisms and environmental factors that lead to cancer and skin diseases, and a deep desire to enhance treatment options for patients who suffer from those diseases.

For example, scientists in the laboratory of Vice Chair for Research **Hasan Mukhtar, PhD**, are working to identify novel biomarkers for skin, lung, and prostate cancer. Their goal? To identify botanically derived agents that can be used for the prevention and tumor-specific treatment of those cancers.

Dr. Mukhtar's lab is also researching whether delphinidin, a plant pigment with anti-inflammatory and anti-proliferative properties, can be harnessed for the treatment of psoriasis.

This work complements research from the lab of **Nihal Ahmad, PhD**, that aims to further define

the role of resveratrol, an antioxidant found in grapes, nuts, and berries, in cancer prevention and treatment. One study found that resveratrol enhances zinc accumulation in the body, which may help fight the spread of prostate cancer cells.

Research from the lab of **Vijay Setaluri, PhD**, seeks to better understand the molecular biology of pigment cells, and the structure and progression of melanoma, an aggressive form of skin cancer. Because melanoma is often fatal after it has spread, scientists there are working to identify methods to suppress melanoma tumors beyond the skin.

In addition, our faculty further cancer research through collaborative projects with investigators at Stanford University, the University of California at San Francisco, Northwestern University, the University of Texas Health Science Center at San Antonio, the University of Kanazawa in Japan, and the International Society for Cutaneous



Lymphomas. Visiting researchers from Brazil, Costa Rica, Italy, Egypt, Germany, China, and India also work closely with them in their labs here.

Bridging the Bench and Bedside

Because laboratory research is only one step toward improved patient care, our research faculty engage in translational and clinical studies throughout the institution.

For example, they have collaborated on an institutional translational research grant to develop disease-specific induced pluripotent stem (iPS) cell lines. This leading-edge work may provide a model to better understand and develop new treatments for potentially debilitating congenital skin diseases, such as ichthyosis and epidermolysis bullosa.

Transplant patients may someday experience the benefit of translational research from **Gloria Xu, MD, PhD**, and **Vladimir Spiegelman, MD, PhD**. Together, they are exploring the genetic pathways that influence the development of cutaneous squamous cell carcinoma, a disease that is up to 250 times more likely to occur in transplant recipients who take immunosuppressants.

Recent trials show how much clinical research and patient care go hand in hand. Department Chair

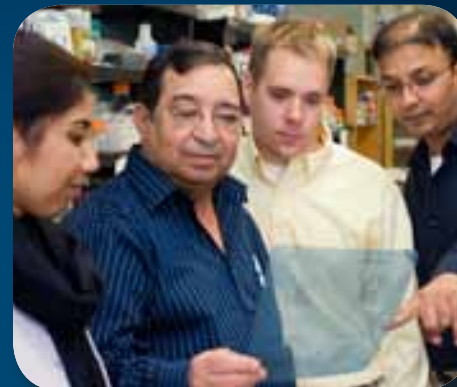
Gary S. Wood, MD, just completed a three-year, Phase III clinical trial evaluating an FDA-approved nitrogen mustard ointment for the treatment of early-stage mycosis fungoides, a type of cutaneous T-cell lymphoma. He is also engaged in innovative research showing that a well-known drug, methotrexate, can be used to inhibit DNA methylation and turn back on tumor suppressor genes that have been silenced in cancer.

And Vice Chair of Clinical Services **Eric Berg, MD**, is investigating whether patients with superficial basal cell carcinoma who undergo only one electrodesiccation and curettage treatment have equally effective cure rates—and consequently less scarring—as patients who undergo the standard three treatments.

Our research even influences professional education across medical specialties, which in turn can result in improved clinical management and better patient experiences. Vice Chair of Education **William Aughenbaugh, MD**, is collaborating with emergency medicine faculty to study how dermatological disorders are diagnosed and treated in the emergency department. The insight gained will be used to develop a teaching curriculum for emergency room providers.

Italian Collaborators Help ‘Deliver’ Green Tea Polyphenols to Prostate Cancer Cells

A collaboration between Imtiaz Siddiqui, PhD, **Hasan Mukhtar, PhD**, and two researchers in Italy is helping advance prostate cancer research. As part of their work on an American Cancer Society grant investigating targeted delivery of EGCG, a type of green tea polyphenol, to cancer cells, Drs. Siddiqui and Mukhtar contacted Mario Sechi, PhD, and Vanna Sanna, PhD, of the University of Sassari.



Drs. Sechi and Sanna have extensive experience characterizing and synthesizing nanoparticles. When they visited Dr. Mukhtar's lab in the summer of 2012, they were able to synthesize nanoparticles that could deliver EGCG to prostate cancer cells. Through this ongoing international collaboration, Drs. Sechi and Sanna will provide synthesized nanoparticles carrying EGCG and natural agents to Drs. Mukhtar and Siddiqui, enabling them to further their research on prostate cancer.

From Student to Scientist: A Reflection

Deeba Syed, MD, PhD, completed her PhD in molecular and environmental toxicology under the guidance of **Dr. Mukhtar**. Her work focuses on three-dimensional modeling to better understand the structure of melanoma cells and the effects of ultraviolet light on skin. She is also investigating how dietary flavonoids may help slow the growth of melanoma cells.



Deeba Syed, MD, PhD

“Research in labs is important because of its potential for real-world application. Ultimately, I want to develop research that can be translated to the bedside.”

—Deeba Syed, MD, PhD, research associate and recent PhD graduate

CLINICAL TRIALS

Drug Trials Offer Effective Treatment for Patients with Cutaneous Lymphoma

Mycosis fungoides (MF) is a common form of cutaneous T-cell lymphoma that can cause skin irritation, plaques, ulcers, and tumors. For patients with MF, it can be difficult to find comfortable clothing, sleep, or even carry out the tasks of daily life.

But in a clinical trial led by **Gary S. Wood, MD**, two patients with early-stage MF entered remission after being treated with a new formulation of nitrogen mustard ointment.

After being diagnosed with MF, George Hertzner, from Minong, Wisconsin, received several types of light therapy from physicians in his area—but none improved the disease. After a consultation with Dr. Wood in 2008, he joined the trial, and every one to two months, for two years, he drove five hours to Madison for follow-ups. He completed the study in October 2010, and is now in remission.

Of his experience, George says, “I couldn’t believe how well I was taken care of—medically, mentally, and financially. It was nice to be with physicians who know and understand this disease. If there were another clinical trial for MF, I would do it again without a doubt.”

Another patient, Elaine Brukwicki, had seen **Dr. Lloyd** for MF, but had switched dermatologists due to a change in insurance. When she received a letter from Dr. Lloyd about the study, she decided to participate and see if the medication could help. Indeed, it was effective: after completing the study, all of her MF lesions were gone and have not returned.

“Being in the study was awesome—everyone treated me with the utmost respect,” Elaine said. “It was a really positive experience, and I was happy to do something to make this drug available for other people with MF.”



Tisha Kawahara, Clinical Research Administrator, and Jennifer Hanser, Education Coordinator, discuss a clinical research project that will involve residents and medical students.

\$15 million

Total research portfolio in 2012,
up from \$3 million in 2002

#8

2011 rank for NIH funding
in dermatology research,
up from unranked status in 2002.

Two of our faculty members
are among the top 20 NIH
researchers in dermatology.

8

Number of PhD candidates
for whom our faculty
are thesis advisors in 2012,
up from 2 in 2005

FACULTY AND STAFF

Chair

Gary S. Wood, MD
Geneva F. & Sture Johnson Professor

Professors

Nihal Ahmad, PhD
Nelson M. Hagan, Class of 1929 Professor
Eric R. Berg, MD
Vice Chair-Clinical Affairs
B. Jack Longley, Jr., MD
Frederic E. Mohs Professor Vice Chair-Dermatopathology
Hasan Mukhtar, PhD
Evan P. Helfaer Professor Vice Chair-Research
George T. Reizner, MD
Vijayasaratthi Setaluri, PhD Cripps-Ratcliff Professor
Stephen N. Snow, MD, MBA
Vice Chair, Dermatologic/Mohs Surgery

Associate Professors

Molly Hinshaw, MD
Rita Lloyd, MD
Ladan Mostaghimi, MD
David R. Puchalsky, MD
Anne Rosin, MD, DVM, MS
Vladimir Spiegelman, MD, PhD
Marjorie Hagan Professor
Joyce Teng, MD, PhD

Assistant Professors

Will Aughenbaugh, MD
Vice Chair-Education
Juliet Aylward, MD
Daniel Bennett, MD
Apple Bodemer, MD
Justin Endo, MD
Lisa Muchard, MD
Andrew Swanson, MD

Erin R. Vanness, MD
Yaohui (Gloria) Xu, MD, PhD

Advance Practice Clinicians

Nancy Heller-Rosenberger, PA
Gail Jahnke, NP
Julie Lederman, NP
Lori Oettinger, NP
Linda Pfister, NP
LaMae Roberts, NP

Procedural Dermatology Fellow

Rebecca Larson, MD

Dermatology Residents

Kirstin Altman, MD
Margo Bendewald, MD
Patrick Kehoe, MD
Rachel Kornik, MD
Cortney McCaughey, MD
Lisa Muchard, MD
Lydia Turnbull, MD
Sherry Youssef, MD

Medicine/Dermatology Residents

Lauren Craddock, MD
Sara Fitz, MD
Thomas Keenan, MD
Brian Kleker, MD
Joanna McGetrick, MD
Jessica Saucier, MD

Volunteer Faculty

Athena Daniolos, MD
Clinical Associate Professor
Manish Gharia, MD
Clinical Assistant Professor
Robert Glinert, MD
Clinical Professor
Rosemarie Liu, MD
Clinical Assistant Professor
Robert McDonald, MD
Clinical Assistant Professor

John Melski, MD
Clinical Associate Professor
Donald Miech, MD
Clinical Professor
Tara Passow, MD
Clinical Assistant Professor
Donald Schuster, MD
Clinical Associate Professor
Harry Sharata, MD
Clinical Professor
Ann Smith, MD
Clinical Assistant Professor
Erik Stratman, MD
Clinical Associate Professor

Administration and UW Staff

Jodie Cook
Clinics Manager
Jennifer Hanser
Education Coordinator
Michael Hetzer
Senior Research Specialist - Mohs
Tisha Kawahara
Clinical Research Administrator

Barbara Lies
Director of Business Services
David Lorman
Information Processes Administrator
Alvina Moazziz
University Services Associate II
Janeen Running
Medical Program Assistant – Senior
Kim Sell
Financial Specialist, IV
Brenda Ziegler
Research Administrator

Scientists

Vaqar Adhami, PhD
Naghma Khan, PhD
Nityanand Maddodi, PhD
Minakshi Nihal, PhD
Felicite Noubissi, PhD
Imtiaz Siddiqui, PhD
Tony Xiao, MD, PhD

Trainees

Mohammad Imran Khan, PhD
Katrin Salva, MD, PhD
Jean Christopher Chamcheu, PhD
Evisabel Craig, PhD
Joshua Desotelle, PhD
Jasmine George
Chandra Singh, PhD
Talha Shekhani, MD, PhD
Cindy Zuleger, PhD
Deeba Syed, MD, PhD

Graduate Students

Brian Cholewa
Ashika Jayanthi
Tae Won Kim
Eiman Mukhtar
Ashley Poetnitzch
Carlos Rodriguez
Melissa Wilking
Jianqiang Wu, MD



Dermatology Faculty, Residents and Fellows

(Front Row) Vijay Setaluri, Justin Endo, Jessica Saucier, Eric Berg, Gary Wood, Sara Fitz, Gloria Xu, Anne Rosin, Lisa Muchard, Joanna McGetrick; (Middle Row) Rachel Kornik, Joyce Teng, Will Aughenbaugh, B. Jack Longley, Stephen Snow, Andrew Swanson, Sherry Youssef, Margo Bendewald, Rita Lloyd; (Back Row) Molly Hinshaw, Juliet Aylward, Patrick Kehoe, Cort McCaughey, Dan Bennett, Vladimir Spiegelman, Erin Vanness, George Reizner; (Absent) Apple Bodemer, Ladan Mostaghimi, David Puchalsky, Nihal Ahmad, Hasan Mukhtar, Brian Kleker, Thomas Keenan

PHILANTHROPY: GRATITUDE MEETS GENEROSITY

ENDOWMENTS

We honor a number of UW faculty and former patients through endowments that support leading-edge research on skin disease and cancer.

Derek J. Cripps Endowment for Skin and Cancer Research

Established in 2006 to honor the 40-year career of Derek Cripps, MD, our second dermatology section chief. Dr. Cripps' groundbreaking research on the effects of ultraviolet light on the skin led to the development of the SPF sunblock rating system. Funded by donations from alumni and current faculty, the endowment supports research on the causes, prevention, and cures of skin disease.

The Ruth Emily Walters Ratcliff Trust

The related Ratcliff trust was established through a bequest in gratitude to Dr. Cripps.

Vijayasaradhi Setaluri, PhD, holds the Cripps/Ratcliff Professorship.

Nelson M. Hagan, Class of 1929 Endowment

This endowment—the most generous contribution to date in the department's history—was created and funded in 2010 through a bequest by Marjorie Hagan. The endowment currently supports research by Hagan Professors **Nihal Ahmad, PhD**, and **Vladimir Spiegelman, PhD**.

LECTURESHIPS

The George Reizner Lectureship

Established by dermatology faculty member **George Reizner, MD**, this lectureship supports the keynote speaker for the Wisconsin Dermatological Society's annual meeting at UW.

The Evan P. and Marion Helfaer Professorship of Dermatological Cancer Research

Supports the development of the department's research missions. **Hasan Mukhtar, PhD**, vice chair of research, holds the Helfaer Professorship.

The Geneva F. and Sture Johnson Professorship

This endowment was a generous family gift honoring our first dermatology section chief, Sture Johnson, MD. It supports leadership that enhances research, teaching, and clinical service in skin disease. Department chair **Gary S. Wood, MD**, holds the Johnson Professorship.

Frederic E. Mohs Endowment for Skin and Cancer Research

This endowment was established in 2007 in honor of Frederic Mohs, MD, who pioneered and perfected micrographic surgery, a technique that is now the worldwide standard of care for skin cancer. Funded primarily by faculty, colleagues, and grateful patients, the endowment continues Dr. Mohs' legendary research in skin cancer and skin diseases. **B. Jack Longley, MD**, is the Frederic E. Mohs Professor.

The Hubert and Mary Moss Lectureship

Established by retired dermatologist Hubert Moss, MD, and his wife Mary, this lectureship brings noted clinician educators and researchers to the local dermatology community.

\$9 million

Total value of department endowments, up from approximately \$750K in 2002.

\$2.2 million

Amount between FY10 and FY12 contributed by our faculty as an investment in the department's endowments.

GENEROSITY

In an era of tight funding, philanthropy is the key to sustaining our research and educational missions. Over the past 10 years, our faculty and staff have made it a personal mission to elevate department development efforts.

With generous donations from patients, alumni, and faculty, we've been able to advance our ground-breaking basic and translational research programs, and expand our nationally respected clinical and research training opportunities.

We are deeply grateful to all of our donors for their commitment and support. Together, we're transforming the future of dermatology, and improving the lives of patients everywhere.

Giving Opportunities

To learn more about giving opportunities in the Department of Dermatology, please:

- Visit us online at www.dermatology.wisc.edu/donate.htm; or
- Contact Nancy Francisco-Welke, Managing Senior Director of Development, University of Wisconsin Foundation
phone: (608) 263-5960

A LIFE HONORED, A WEDDING CELEBRATED



Katie Kearns was in elementary school when her mother, Mary Pat Hansen, was first diagnosed with melanoma. Over the next six years, she and her siblings got to know **George Reizner, MD**, while accompanying their mother to medical appointments.

Sadly, melanoma took Mary Pat's life in November 2000, when Katie was in eighth grade.

Fast forward nearly 12 years. Katie never forgot the compassionate care Dr. Reizner gave her mother during her struggle—and how he helped Katie and her siblings, who have since become his patients. “He had a way of easing our anxieties and helping us feel comfortable

with something that we, as children, didn't understand,” she recalled.

So while planning her own wedding—a bittersweet time in which she missed her mother dearly—Katie thought about ways she could honor her memory on that special day.

In addition to inviting Dr. Reizner to their wedding, Katie and her now-husband Eddie decided to make a donation to the Frederic E. Mohs Endowment on behalf of all the family and friends who were able to share their celebration. In a letter to their guests, they also provided information for those who wished to make a donation.

“We were excited to be contributing to such a worthy cause, and consider it a small way of expressing our gratitude for the wonderful care my mother received at UW,” Katie said.

We are deeply grateful to Katie and Eddie for their generosity, and wish them a long and happy life together!



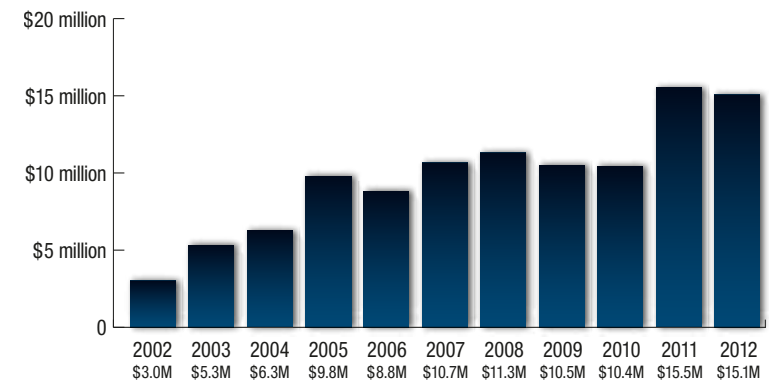
Photos courtesy of Michelle Martin Photography

DEPARTMENT SNAPSHOT

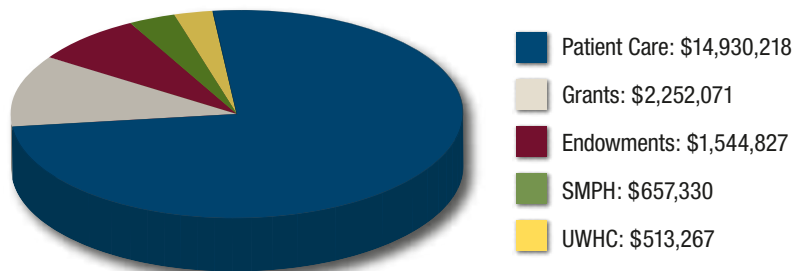
This snapshot demonstrates the Department of Dermatology's extraordinary growth over the past decade. From 2002 to 2012, our clinical revenue increased from \$2M to almost \$15M, and our research portfolio grew from a modest program to over \$15M. Since 2004, our faculty contributed over \$7M to the department and to the School of Medicine and Public Health. Finally, our clinical presence has expanded from individual dermatologists at a few sites in 2002 to nine collegial, efficient clinics that had over 65,000 patient visits in 2012.

Research Portfolio

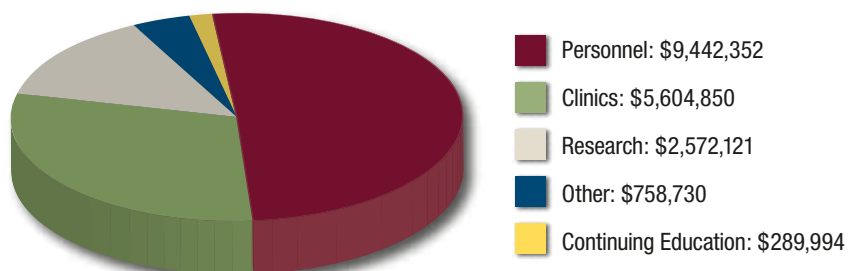
Total Value



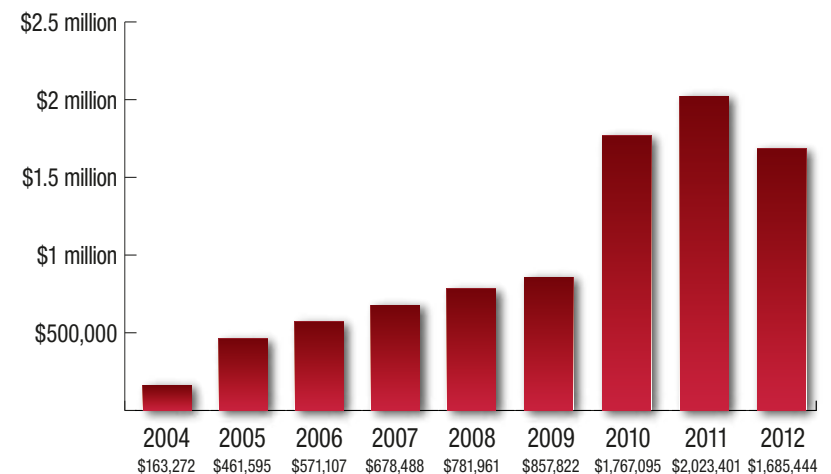
FY12 Revenue Sources

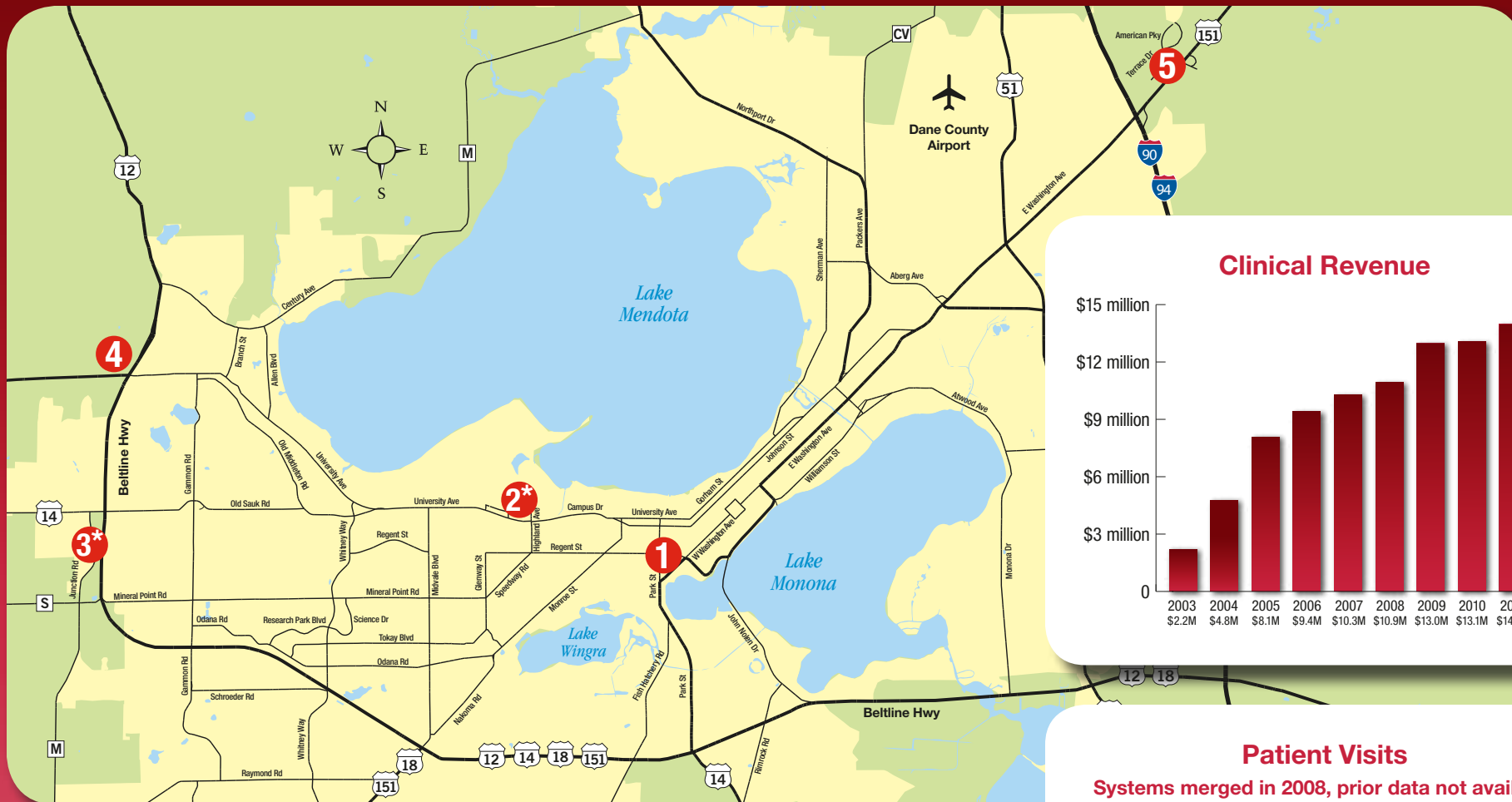


FY12 Expenses



Total Contributions to SMPH and Dept. by Clinical Faculty



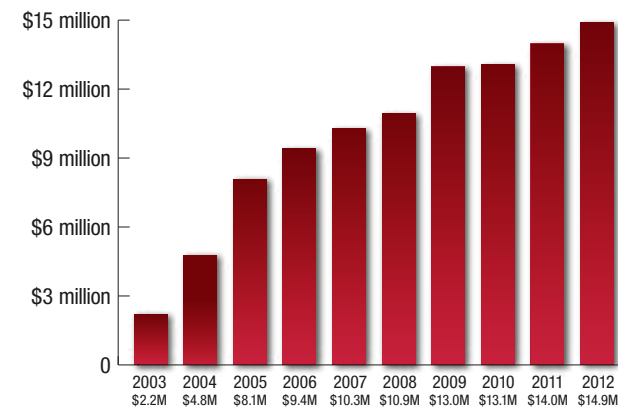


Dermatology Clinical Locations

- 1** 1 S. Park Clinic
1 S. Park St., Madison, WI 53715
- 2** UW Hospital and Clinics
600 Highland Ave., Madison, WI 53792
American Family Children's Hospital
1675 Highland Ave., Madison, WI 53792
UW Carbone Cancer Center
600 Highland Ave., Madison, WI 53792
Middleton Memorial VA Hospital
2500 Overlook Terrace, Madison, WI 53705
- 3** West Clinic
451 Junction Road, Madison, WI 53717
 - General Dermatology
 - Mohs/Dermatologic Surgery
 - Dermatopathology
- 4** UW Health Transformations
2349 Deming Way, Middleton, WI 53562
- 5** East Clinic
5249 E. Terrace Drive, Madison, WI 53718

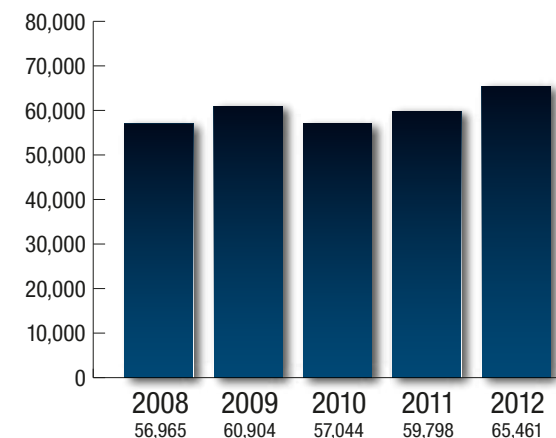
*Denotes multiple clinic locations

Clinical Revenue



Patient Visits

Systems merged in 2008, prior data not available



PUBLICATIONS

Selected Department of Dermatology Publications 2011-2012

(More than 80 publications total.)

- Adhami VM, Siddiqui IA, Syed DN, Lall RK, **Mukhtar H**. Oral infusion of pomegranate fruit extract inhibits prostate carcinogenesis in the TRAMP model. *Carcinogenesis*. 33:644-51, 2012.
- Adhami VM, Syed DN, Khan N, **Mukhtar H**. Dietary flavonoid fisetin: A novel dual inhibitor of PI3K/Akt and mTOR for prostate cancer management. *Biochemical Pharmacology*. 2012. (Publication – In press)
- Apisarnthanarax N, **Wood GS**, et al. Phase I Clinical Trial of O6-Benzylguanine and Topical Carmustine in the Treatment of Cutaneous T-Cell Lymphoma, Mycosis Fungoides Type. *Archives of Dermatology*. 148:613-20, 2012.
- Bhatia N, Demmer TA, Sharma AK, Elcheva I, **Spiegelman VS**. Role of β -TrCP ubiquitin ligase receptor in UVB mediated responses in skin. *Archives of Biochemistry and Biophysics*. 508:178-84, 2011.
- Bhatia N, Yang B, Xiao TZ, Peters N, Hoffmann MF, **Longley BJ**. Identification of novel small molecules that inhibit protein-protein interactions between MAGE and KAP-1. *Archives of Biochemistry and Biophysics*. 508:217-21, 2011.
- Chamcheu JC, Navsaria H, Pihl-Lundin I, Liovic M, Vahlquist A, Törmä H. Chemical chaperones protect epidermolysis bullosa simplex keratinocytes from heat stress-induced keratin aggregation: involvement of heat shock proteins and MAP kinases. *Journal of Investigative Dermatology*. 131:1684-91, 2011.
- Craig EA, **Spiegelman VS**. Inhibition of coding region determinant binding protein sensitizes melanoma cells to chemotherapeutic agents. *Pigment Cell & Melanoma Research*. 25:83-7, 2012.
- Daniolos A**, Condyloma Accuminata (Genital Warts), In: *Conn's Current Therapy*, Elsevier, 2011 Ed. and 2012 Ed
- Desotelle JA, Wilking MJ, **Ahmad N**. The Circadian Control of Skin and Cutaneous Photodamage. *Photochemistry and Photobiology*. 88:1037-47, 2012.
- Endo JO**, Myers D, Stratman EJ. Conflict of interest and disclosure: Analysis of American Academy of Dermatology Annual Meetings. *Journal of the American Academy of Dermatology*. 66:e20-1, 2012.
- Gunkel J**, Premalignant Cutaneous and Mucosal Lesions, In: *Conn's Current Therapy*, Elsevier, 2011 Ed., and 2012 Ed
- Fett NM, **Teng J**, **Longley BJ**. Familial Urticaria Pigmentosa: Report of a Family and Review of the Role of KIT Mutations. *American Journal of Dermatopathology*. 2012. (Publication – In press)
- Hinshaw M**, Lee LH, Troy J. Purpura, eschars, and leg edema in a traveler – quiz case. *Archives of Dermatology*. 148:247-52, 2012.
- Hinshaw M**, Autoimmune Connective Tissue Disease: Cutaneous Vasculitis. , In: *Conn's Current Therapy*, Elsevier, 2011 Ed., and 2012 Ed.
- Johnson JJ, Petiwala SM, Syed DN, Rasmussen JT, Adhami VM, Siddiqui IA, Kohl AM, **Mukhtar H**. α -Mangostin, a xanthone from mangosteen fruit, promotes cell cycle arrest in prostate cancer and decreases xenograft tumor growth. *Carcinogenesis*. 33:413-9, 2012.
- Kedlaya R, Kandala G, Liu TF, Maddodi N, Devi S, **Setaluri V**. Interactions between GIPC-APPL and GIPC-TRP1 regulate melanosomal protein trafficking and melanogenesis in human melanocytes. *Archives of Biochemistry and Biophysics*. 508:227-33, 2011.
- Khan N, Adhami VM, Afaq F, **Mukhtar H**. Butein Induces Apoptosis and Inhibits Prostate Tumor Growth In Vitro and In Vivo. *Antioxidants & Redox Signaling*. 16:1195-204, 2012.
- Khan N, Afaq F, Khusro FH, Adhami VM, Suh Y, **Mukhtar H**. Dual inhibition of PI3K/Akt and mTOR signaling in human non-small cell lung cancer cells by a dietary flavonoid fisetin. *International Journal of Cancer*. 130:1695-705, 2012.
- Khan N, Syed DN, Pal HC, **Mukhtar H**, Afaq F. Pomegranate Fruit Extract Inhibits UVB-induced Inflammation and Proliferation by Modulating NF- κ B and MAPK Signaling Pathways in Mouse Skin. *Photochemistry and Photobiology*. 88:1126-34, 2012.

20. Kleker BM, Ramirez-Fort MK, **Puchalsky D, Longley BJ, Swanson A**, Zone J. A generalized annular eruption with occasional vesicles—quiz case. *Archives of Dermatology*. 148:531-6, 2012.
21. Klionsky DJ, **Setaluri V**, Zuckerbraun B, et al. Guidelines for the use and interpretation of assays for monitoring autophagy. *Autophagy*. 8:445-544, 2012.
22. Kornik RI, **Muchard LK, Teng JM**. Dermatofibrosarcoma Protuberans in Children: an Update on the Diagnosis and Treatment. *Pediatric Dermatology*. 2012. (Publication – In press)
23. Maddodi N, Jayanthi A, **Setaluri V**. Shining Light on Skin Pigmentation: The Darker and the Brighter Side of Effects of UV Radiation. *Photochemistry and Photobiology*. 88:1075-82, 2012.
24. Moraites E, Myers DJ, **Lloyd R, Longley BJ**. A 38-year-old woman with eyelid discoloration-quiz case. *Archives of Dermatology*. 148:947-52, 2012.
25. **Mostaghimi L**, Psychocutaneous Medicine, In: Conn's Current Therapy, Elsevier, 2011 Ed. , and 2012 Ed.
26. **Puchalsky D**, Papulosquamous Eruptions – Psoriasis, In: Conn's Current Therapy, Elsevier, 2011 Ed., and 2012 Ed.
27. Rae J, Viros A, Hayward R, **Bennett DC**, Dhomen N, **Longley BJ**, Reis-Filho JS, Marais R. (V600E)Braf::Tyr-CreERT2::K14-Kitl Mice Do Not Develop Superficial Spreading-Like Melanoma: Keratinocyte Kit Ligand Is Insufficient to “Translocate” (V600E)Braf-Driven Melanoma to the Epidermis. *Journal of Investigative Dermatology*. 132:488-91, 2012.
28. **Rosin A**, Warts (Verruca), In: Conn's Current Therapy, Elsevier, 2011 Ed., and 2012 Ed
29. Schmit TL, Nihal M, Ndiaye M, **Setaluri V, Spiegelman VS, Ahmad N**. Numb Regulates Stability and Localization of the Mitotic Kinase PLK1 and Is Required for Transit through Mitosis. *Cancer Research*. 72:3864-72, 2012.
30. Siddiqui IA, Asim M, Hafeez BB, Adhami VM, Tarapore RS, **Mukhtar H**. Green tea polyphenol EGCG blunts androgen receptor function in prostate cancer. *FASEB Journal*. 25:1198-207, 2011.
31. Slattery MJ, Essex MJ, Paletz EM, **Vanness ER**, Infante M, Rogers GM, Gern JE. Depression, anxiety, and dermatologic quality of life in adolescents with atopic dermatitis. *Journal of Allergy and Clinical Immunology*. 128:668-71, 2011.
32. Stutz N, Johnson RD, **Wood GS**. The Fas apoptotic pathway in cutaneous T-cell lymphomas: Frequent expression of phenotypes associated with resistance to apoptosis. *Journal of the American Academy of Dermatology*. 2012. (Publication – In press)
33. Stutz N, Nihal M, **Wood GS**. Polo-like kinase 1 (Plk1) in cutaneous T-cell lymphoma. *British Journal of Dermatology*. 164:814-21, 2011.
34. Syed DN, Afaq F, Maddodi N, Johnson JJ, Sarfaraz S, Ahmad A, **Setaluri V, Mukhtar H**. Inhibition of human melanoma cell growth by the dietary flavonoid fisetin is associated with disruption of Wnt/ β -catenin signaling and decreased Mitf levels. *Journal of Investigative Dermatology*. 131:1291-9, 2011.
35. Syed DN, Afaq F, **Mukhtar H**. Differential Activation of Signaling Pathways by UVA and UVB Radiation in Normal Human Epidermal Keratinocytes. *Photochemistry and Photobiology*. 88:1184-90, 2012.
36. Syed DN, **Mukhtar H**. Gender bias in skin cancer: role of catalase revealed. *Journal of Investigative Dermatology*. 132:512-4, 2012.
37. Tarapore RS, Siddiqui IA, **Mukhtar H**. Modulation of Wnt/ β -catenin signaling pathway by bioactive food components. *Carcinogenesis*. 33:483-91, 2012.
38. **Vanness E**, Erythema Multiforme, Stevens-Johnson Syndrome, and Toxic Epidermal Necrolysis, In: Conn's Current Therapy, Elsevier, 2011 Ed., and 2012 Ed.
39. Wanat KA, Gormley RH, **Bennett DD**, Kovarik CL. Genitogluteal porokeratosis involving the scrotum: an unusual presentation of an uncommon disease. *Journal of Cutaneous Pathology*. 39:72-4, 2012.
40. Wu J, Siddiqui J, Nihal M, Vonderheid EC, **Wood GS**. Structural alterations of the FAS gene in cutaneous T-cell lymphoma (CTCL). *Archives of Biochemistry and Biophysics*. 508:185-91, 2011.
41. Wu J, **Wood GS**. Reduction of Fas/CD95 Promoter Methylation, Upregulation of Fas Protein, and Enhancement of Sensitivity to Apoptosis in Cutaneous T-Cell Lymphoma. *Archives of Dermatology*. 147:443-9, 2011.
42. Xiao TZ, Bhatia N, Urrutia R, Lomberg GA, Simpson A, **Longley BJ**. MAGE I transcription factors regulate KAP1 and KRAB domain zinc finger transcription factor mediated gene repression. *PLoS One*, 6:e23747, 2011.

Department of Dermatology Contacts

Administration and Education:

Department of Dermatology
One South Park St, 7th Floor
Madison, Wisconsin 53715
(608) 287-2620

Research Programs:

Department of Dermatology Research Laboratories
Medical Sciences Center, #436
1300 University Avenue
Madison, Wisconsin 53706
(608) 263-4195

Credits

Department of Dermatology:

Faculty: Nihal Ahmad, PhD; William Aughenbaugh, MD; Juliet Aylward, MD; Eric Berg, MD; Justin Endo, MD; Rita Lloyd, MD; B. Jack Longley, MD; Hasan Mukhtar, PhD; George Reizner, MD; Vijay Setaluri, PhD; Andrew Swanson, MD; Gary S. Wood, MD; Gloria Xu, MD, PhD;

Staff: Jennifer Hanser, Michael Hetzer, Tisha Kawahara, Barbara Lies, Janeen Running, Deeba Syed, MD, PhD, Brenda Ziegler

As Is Communications: Andrea Schmick

Michelle Martin Photography

UW Health Marketing and Public Affairs: Nicole Barreau, John Maniaci, Kathleen Pape

UW Health Media Services: Christopher Frazee, John Wingren



School of Medicine
and Public Health
UNIVERSITY OF WISCONSIN-MADISON