

Van Andel Institute's

# Highlights *of* Hope



## *Inside:*

**Bringing Hope to Patients and Families through Research**

**Topping Off Phase II**

**Bringing Hope to Life Campaign**

**VAI Graduate School Welcomes New Students**



Fall 2008

# Highlights of Hope

News from Van Andel Institute

If you would like to receive *Highlights of Hope* electronically or if you would like to stop receiving issues, please contact the editorial staff. Van Andel Institute does not share donor lists or information with other organizations.

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VARI Scientific Investigator Jeff MacKeigan, Ph.D., VAI Graduate School Student Natalie Wolters, VARI Director George F. Vande Woude, Ph.D.

## A Letter from David Van Andel Steel Beams and A Steel Will

### Dear Friends,

Last month I spoke at the Van Andel Institute Phase II Expansion Topping Off Ceremony. It was an opportunity to commemorate the placing of the uppermost beam in the new structure, to give thanks for a safe worksite, and to look ahead to Phase II's grand opening in 2009 and to the promise of our expanded research capacity.

My remarks that day covered much of the same ground that I'm about to discuss now. But I think the topic is an important enough one to revisit with a letter to the supporters who make it possible for us to carry out our important, life-changing work.

At the ceremony I spoke to the employees, trustees, and friends of the Institute who had gathered to help us commemorate the milestone, and recited a number of impressive statistics:

- 3.3 million pounds of steel are in now place
- more than 246 miles of wire and cable will eventually thread throughout the new facility
- 19,500 cubic yards of concrete have been poured
- the total glass weight in the structure exceeds 500,000 pounds

But I emphasized one statistic that stood out among all the rest, a statistic that helps to shed light on the importance of our undertaking, and what it really meant for us to be gathered together that day: Last year 560,000 men, women and children were killed by cancer in this country.

To put that number in perspective and help you visualize it, the number 560,000 is nearly equal to the total of all persons living in Kent County, Michigan today. Nearly every man, woman and child.

In the midst of our celebration, I took the opportunity to remind the assembled employees, officials and guests that this number should bring us up short with the realization that there is much more work to be done. More work, more research, more education, more funding, and the development of more, and more effective, treatments.



As we have known from the beginning, improving health and changing and enhancing lives for the better does not come about just because we put steel in the ground. This sort of change requires hearts and minds, and a steel will to move ahead in the face of adversity.

We know that not every experiment leads to a breakthrough, not every drug in development is eventually brought to market, and not every life sciences venture is a guaranteed success. That is the nature of science and of business.

But although we face many challenges, we are on the right road. Every great undertaking requires not only expertise and thorough preparation but several other intangibles as well: a vision, the trust and collaboration of people willing to work to see that vision to reality, and a will to see it through to its completion.

The tangible expression of that vision was visible to anyone present at the topping off ceremony and it is visible to anyone who cares to take a stroll along the Medical Mile in downtown Grand Rapids. Phase II represents the expansion of an independent biomedical research institution unencumbered by bureaucracy, a scientific community that encourages collaborative and novel approaches to research within its own labs, with organizations in West Michigan and with institutions throughout the world.

The trust and collaboration have come from a community willing to embrace new ideas to help make this vision possible – a community and its leaders willing to blend a tradition of manufacturing technology to adapt to new demands, that through ingenuity and thoughtful, sustained investment is laying the groundwork for a new, 21st century economic model based on the life sciences.

We have a bright vision and we have gained the trust and the collaboration of the community. But do we have the will for this great undertaking?

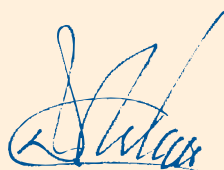
If you have any doubts, I invite you to consider the following:

- Our construction team and others throughout the Medical Mile are forging ahead through sun and rain and snow.
- Our researchers are working day and night to unravel the mysteries of the genetic and molecular origins of cancer and to turn those discoveries into therapies that will change lives.
- Our education experts are kindling a spark of wonder in students and nurturing that spark into a flame of passion for science.

- Our supporters and donors are bolstering the development of a life sciences corridor in West Michigan through private philanthropy in a way almost unheard of in any other part of the nation.
- And the people of West Michigan have the entrepreneurial spirit and the will to create an important and thriving life sciences center here.

If we are ever tempted to become discouraged or to lose faith in our mission, let's keep all of this in mind. And let's keep the 560,000 men, women and children in mind. And let's redouble our efforts.

Thank you all for your hard work and for your support.



David Van Andel  
Chairman & CEO, Van Andel Institute

Get Online...  
Get Informed



Stay connected to VAI news, events and gifting options, all online at [www.vai.org](http://www.vai.org)

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We are redesigning the VAI web site! Do you have any feedback or ideas about how the site can better serve and inform you? If so, please e-mail [sarah.smedes@vai.org](mailto:sarah.smedes@vai.org) or call (616) 234-5792. The new site will launch in Fall 2009 in conjunction with our Phase II grand opening.

## Bringing Hope to Patients and Families through Research

As Van Andel Institute (VAI) gears up to staff the 240,000 square-foot Phase II expansion set to open in late 2009, demographic projections show that the need for novel biomedical research will only increase as the U.S. population ages. Over 560,000 Americans will die from cancer in 2008, and the global cancer rate could rise by 50% in the next decade. 1.5 million Americans currently have Parkinson disease. Five million Americans are living with Alzheimer's disease and the odds of diagnosis double every five years beyond age 65. Locally, the statistics tell an even more dire story. In the 14-county West Michigan clinical treatment area, cancer is 27% above the national average as an underlying cause of death and Alzheimer's disease is 55.6% higher than the national average.

Research Director George Vande Woude, Ph.D., a towering figure in the world of cancer research, has assembled a truly collaborative, international research team of more than 150 researchers representing more than a dozen nations to fight disease at Van Andel Institute. VAI researchers have been very successful in competing for funding, including multiple awards from the National Institutes of Health, an indicator of the quality and impact of the research being conducted at the Institute. They have also published

more than 400 papers in prestigious peer-reviewed scientific journals, and are currently partnering with peers from around the world in over 160 scientific collaborations.

Although VAI primarily conducts cancer research, finding causes and drug targets at the molecular level and translating those findings into therapies, research also

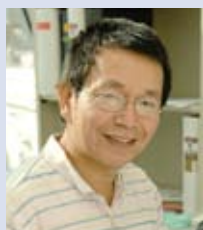
branches out into other diseases such as diabetes, osteoporosis, cardiovascular disease, and Parkinson disease. The Institute's Phase II expansion will allow researchers to broaden the scope of research even further into Alzheimer's disease and other threats to human health.



**George Vande Woude, Ph.D.**

Examples of recent findings made possible by the generous support of VAI donors and granting institutions include:

### Aiding Drug Development for Osteoporosis, Anxiety, and Depression Therapies



**Eric Xu, Ph.D.**

Led by Distinguished Scientific Investigator Eric Xu, Ph.D., researchers in the Laboratory of Structural Sciences determine the molecular structure of important drug targets through a process called X-ray crystallography. Using this process, they have determined how the parathyroid hormone (PTH) and a hormone known as corticotrophin releasing factor (CRF) bind to their receptors (proteins that attach to

hormones or other molecules on the cell's surface, activating changes in the cell). The detailed structural information will allow drug developers to create new drugs to treat anxiety, depression, and related disorders by targeting the CRF receptor, and to make current osteoporosis drugs more potent with fewer side effects by fitting drugs more perfectly to the PTH receptor.

"The crystallizing process that we have developed has allowed us to determine structural information that nobody else has been able to offer," said Xu. "We will continue to apply this process to other hormones in the same family as CRF and PTH."

### Hope for Young Wilms' Tumor Patients

Through collaboration with Helen DeVos Children's Hospital, the Gerber Foundation, the University of Chicago, and Northwestern University, researchers in the Laboratory of Cancer Genetics at VAI found that Wilms' tumor samples all had abnormally high levels of a particular type of small regulatory RNA molecules, which could help target tumor cells in non-chemotherapeutic treatments. They also found that levels of the protein E2F3 were lowest in early-stage tumors and highest in metastatic tissue (cancer that has spread), which could lead to more accurate prognoses. Wilms' tumor is the most common type of kidney cancer that affects children.

"This collaboration is an excellent example of the type of cooperation that is necessary to make advances in cancer knowledge and treatment in the modern era," said Albert S. Cornelius, M.D., a physician at Helen DeVos Children's Hospital.



## Topping Off Phase II Expanded Research Ahead

Van Andel Institute held a topping off ceremony on October 1, 2008, to celebrate the completion of the overall structure of the Phase II building expansion and the installation of the uppermost beam. Employees and trustees signed the beam, which was raised after comments by CAO and General Counsel Steve Heacock, Chairman and CEO David Van Andel, and Congressman Vernon J. Ehlers.

Not only will Van Andel Institute's Phase II building expansion allow the growth of current laboratories, adding staff and broadening research focus, but it will also allow VAI to create new labs, such as the Jay Van Andel Parkinson Research Lab. Lab space is increasing from 40,770 square feet to 95,000 square feet, more than doubling VAI's research space. The new laboratories will have 50% more support space designed in, such as alcoves and environmental rooms.

### Work to Date

Skylight installation on level 2 complete - in progress on levels 3, 4

Masonry on level 1 is complete

Fireproofing of steel on levels 3 and 4 complete

Electrical conduit installation - 15% of total, 40,500 linear feet, complete

Ductwork installation - 31% of total, 179,800 pounds, basement complete, levels 1, 2 in progress

Heavy wall piping installation - 30% of total, 4,050 linear feet complete

Construction waste recycled - 1,673,820 pounds, 95% of total waste, exceeding the set goal of 75%



### Finding New Anti-Cancer Drug Targets

Researchers in the Laboratory of Systems Biology and Novartis Institutes for Biomedical Research found that lowering levels of the enzyme PI3K-C2alpha caused a wide variety of cancer cells to die, reduced proliferation of cancer cells, and sensitized cancer cells to commonly-used chemotherapeutic agents. Working with cell lines representing the most common forms of cancer in the United States, researchers in the Laboratory of Chromosome Replication found higher than normal levels of the Cdc7-Dbf4 protein kinase, an enzyme crucial to cell division, in many of the tumors. Both PI3K-C2alpha and the Cdc7-Dbf4 protein kinase are potential drug targets for anti-cancer treatments.



Jeff MacKeigan, Ph.D.

"For some reason, cancer cells become 'addicted' to certain genes," said VAI Scientific Investigator Jeff MacKeigan, Ph.D., who heads the Laboratory of Systems Biology. "When we find a protein in higher or

lower than normal levels in cells, we block the gene that results in that protein to see if it has any effect on cancer cells. In this case, it did."

### Improving Kidney Cancer Diagnosis

Researchers in the Laboratory of Cancer Genetics have identified unique DNA changes in each of several types of renal cell carcinoma (RCC), the most common form of kidney cancer in adults. These findings could

aid in the diagnosis of these cancers since the many types of RCC are currently identified only by their appearance. Further research could identify drug targets for each type.



Bin Tean Teh, M.D., Ph.D.

"There are so many subtypes of RCC, and currently they are identified by sight, which can be subjective," said VAI Distinguished Scientific Investigator Bin Tean Teh, M.D., Ph.D. "Now we have an objective, definitive way to identify several types of RCC, which could have diagnostic and prognostic value."

## Event Snapshots

Van Andel Institute holds several events throughout the year to support research and education. Celebration of Hope, our gala event, ends the event season each year, but look for future events on the back cover of this issue or at [www.vai.org](http://www.vai.org).

## Thank You to Our Event Sponsors!

We extend a special thank you to our many event sponsors. These fabulous events would not be possible without their support!

- Around the World*
- NAYA Bistro & Wine Bar**
- Inaugural VAI Golf Outing*
- Clark Hill PLC**
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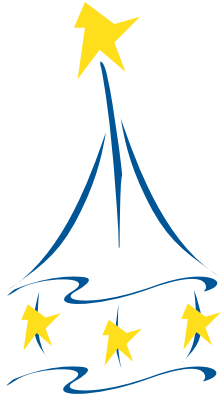
## Around the World

Guests tasted over 100 wines and sampled cuisine from around the world including potstickers, paneer, bruschetta, spanikopita, empanadas, and more at NAYA Bistro & Wine Bar.

# Inaugural Van Andel Institute Golf Outing

Participants had a rare opportunity to golf at the exclusive Wuskowhan Players Club, one of the Top 10 Best Golf Courses in Michigan. Special thanks to title sponsor Warner, Norcross & Judd LLP.





# CARNIVAL ON THE GRAND

Guests enjoyed a family-friendly evening of fun and games, entertainment, and carnival food. The night included carousel rides, planetarium and magic shows, and a great view of the Celebration on the Grand fireworks. Special thanks to title sponsor Bank of America.



## *Puttin' on the* **RITZ** AT **THE FITZ**

Guests walked on the red carpet and straight into the 1920's atmosphere of this event complete with champagne bar, live music, and popular drinks from the era. The event celebrated the grand opening of the Fitzgerald Condominiums in the historic former YMCA building and guests got a first look at these luxury condos.





# Bringing Hope to Life

Van Andel Institute®

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Ralph Hauenstein  
Fritz and Carol Rottman  
David and Carol Van Andel  
Gord and Margaret Van Wylene

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Casey Wondergem

## Bringing Hope to Life

A Message from Joe Gavan, Vice President, Communications and Development

This issue of Highlights of Hope showcases the Institute's capacity to impact the community and the greater world through our research into the genetic and molecular origins of cancer and other diseases. It also highlights the need for that research and the additional research that will be undertaken with the completion of Phase II in late 2009.

Our significant scientific achievements make me prouder and more excited than ever to talk about the *Bringing Hope to Life* campaign. The goal of *Bringing Hope to Life* is to raise a minimum of \$10 million by December 2009 to fund:

- the creation of a Parkinson disease laboratory
- the expansion of pioneering research and education programs not covered by grant funding
- renovations to Crescent Park

Your support enhances our understanding of disease, nourishes an environment that encourages scientific creativity and exploration, helps clear the path for bringing discoveries from the lab bench to the patient's bedside, and brings hope to life for families, friends and neighbors coping with disease.

If you would like to learn more about the campaign, contact any one of the campaign's dedicated volunteers listed on the left or call (616-234-5681) or e-mail ([laurie.ward@vai.org](mailto:laurie.ward@vai.org)) Laurie Ward, Van Andel Institute's Director of Development. Information will be forwarded to you promptly.



## Why We Give...




"Cancer and Parkinson are diseases that have impacted our family personally. We are investing in Van Andel Institute as a local resource in the fight against these diseases, knowing it will make a global impact."

—Win and Kyle Irwin

## Host an Event for Hope

Van Andel Institute encourages organizations and individuals to host events that benefit research and education at the Institute. Golf outings, dinners, rides, tournaments, bake sales, walks...the possibilities are endless. The research and education opportunities each event creates are truly amazing.

If you would like to host an event to benefit the Institute, please contact Sarah Lamb at (616) 234-5712 or [sarah.lamb@vai.org](mailto:sarah.lamb@vai.org) or go to [www.vai.org/news.aspx](http://www.vai.org/news.aspx) and click on the "Host an Event for Hope" link, where you will find tools and information to get started. 

The dollars raised stay local, but have a global impact. Get creative and make a difference in people's lives here at home and around the world through fun and inspiring events.

### Thank you

Thank you to our 2007 event hosts, who helped raise funds to support Van Andel Institute!

- **Johan's TriFest** (pictured below left) is an olympic distance triathlon and festival that celebrates life in tribute to Johan Visser, a businessman and ten-time Ironman triathlete who lost his life to cancer in 2002.

- **The Dwight Reed Memorial Golf Outing**

(below center) honors Dwight Reed, a devoted husband, father, and friend who died of a rare and aggressive form of cancer known as soft tissue sarcoma.

- **Rally for Hope and Hunger**

(below right) is a 50-mile motorcycle ride founded by John Wheeler, owner and CEO of Rockford Construction, who wanted to host a fun event that showed how caring motorcyclists can be.



"Van Andel Institute has brought cutting edge medical research to Grand Rapids and is a major impetus in making biomedical science a pillar of the local economy. It is easy to be enthusiastic about the top notch medical research done that translates into improved medical care and outcomes.



We support VAI and its efforts because what they do is good for us, good for Grand Rapids, and ultimately good for everyone."

—Martin and Peggy Greydanus

"I've known classmates and friends' parents who have struggled or died from cancer. Through Hope College's Dance Marathon, I'm acquainted with children who have struggled with leukemia. I give to Van Andel Institute because I know that the research that is being done there makes a difference in people's lives - people I know."



—Eric Jones

## Daniel Nathans Memorial Award Presentations December 2008




(l to r) Harald zur Hausen, M.D., George Vande Woude, Ph.D., and Doug Lowy, M.D. zur Hausen and Lowy were the 2007 Daniel Nathans award recipients; zur Hausen was awarded the Nobel Prize in chemistry in 2008.

The Daniel Nathans Memorial Award recognizes individuals who emulate Dr. Daniel Nathans, a distinguished member of the scientific community and a founding member of Van Andel Research Institute's Board of Scientific Advisors who succumbed to cancer in 1999.

Hear presentations from this year's award winners who have made significant contributions to biomedical and cancer research that have benefited public health:

**Dennis Slamon, M.D., Ph.D.**, Director, Clinical/Translational Research, UCLA Jonsson Comprehensive Cancer Center

**Arthur D. Levinson, Ph.D.**, Chairman and Chief Executive Officer, Genentech, Inc.


There will be presentations for both the general public and for people who work in the life sciences. Details coming soon at [www.vai.org](http://www.vai.org). 

## Han-Mo Koo Seminar Series Open to the Public

Van Andel Institute hosts speakers from some of the most respected academic, federal, and private research institutes in the nation and around the world through its ongoing Han-Mo Koo Seminar Series, dedicated to the memory of VAI Principal Investigator Han-Mo Koo. Koo joined Van Andel Research Institute in June of 1999 as the principal investigator of the Laboratory of Cancer Pharmacogenetics, in which he established, among others, projects to study melanoma and pancreatic cancer. In May 2004, Koo passed away following a six-month battle with cancer.

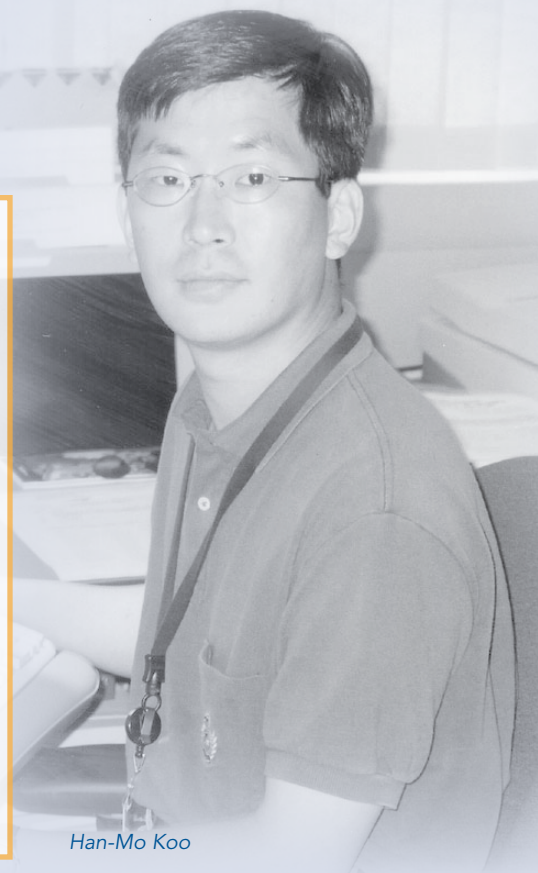
These scientific presentations are geared toward those in the life sciences field, but there are several that are suitable for a wider audience. Attendees will learn about current disease research.

All seminars take place from noon to 1:00 p.m. at Van Andel Institute. Call

Laura Holman at (616) 234-5749 for more information. Upcoming seminars, speakers, and topics are listed at [www.vai.org/news.aspx](http://www.vai.org/news.aspx) under the "Han-Mo Koo Seminars" link. 

### Upcoming Seminar:

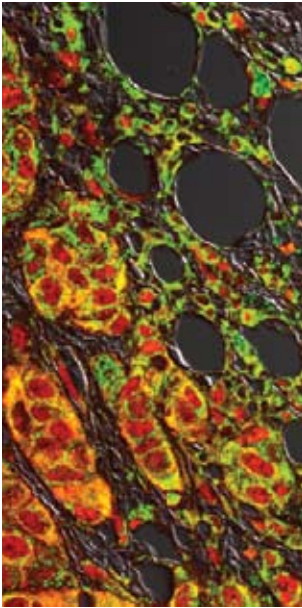
<b>Date:</b>	December 3, 2008 12:00 - 1:00pm
<b>Speaker:</b>	Grant D. Barish, M.D.
<b>Presentation Title:</b>	Nuclear Receptor and Corepressor Control of Inflammation "Getting SMRT About Atherosclerosis"
<b>Speaker Affiliation:</b>	Salk Institute for Biological Studies; University of California, San Francisco; La Jolla Veterans Administration Medical Center
<b>Speaker Title:</b>	Research Associate; Clinical Instructor, Department of Medicine; Staff Physician



Han-Mo Koo

# Investigator Profile

## Jim Resau



**Clockwise from left:** Resau's photo of invading breast cancer cells was selected as one of the top 100 images out of 1,709 entries in the Nikon Small World Photomicrography Competition; Sharing his interest in toy trains with grandson Noah; Resau in the lab; Working on Habitat for Humanity Homes in Guatemala

Jim Resau, Ph.D., likes to keep busy. It's why his Van Andel Institute (VAI) title is so long: Deputy Director for Special Programs; Director, Division of Quantitative Sciences; and Distinguished Scientific Investigator. It's why he has already "retired" three times from different organizations. It's why Resau is an avid hobbyist, collecting toy trains, coca cola advertising, old rifles, and view masters. And it's why he and his wife Chris are active community members.

As the director of the Division of Quantitative Sciences at VAI, Resau oversees several laboratories that use objective measures to define events and processes associated with disease. Resau heads the Laboratory of Analytical, Cellular and Molecular Microscopy and the Laboratory of Microarray Technology. His labs use powerful imaging equipment and gene expression analysis to aid research, and they are compiling a repository of tissue samples with the help of local hospitals and an electronic database with associated information for each sample. Resau also oversees VAI's collaboration with St. Mary's to study Parkinson disease.

Resau likes the fact that he is surrounded by students participating in various VAI training programs. "If you can teach something, it makes you sharper," he said. He has also traveled with college students and faculty to Guatemala and the Dominican Republic four times to build cinderblock homes for Habitat for Humanity.

Resau has been active in the Grand Rapids community too, involved in organizations such as the Scottish Rite Dyslexia Center, the Army Navy Club, and the West Michigan Toy Train Collectors Club. His wife Chris is a court-appointed special advocate (CASA) for wards of the court and received the 2007 Booker T. Washington Volunteer Award from the Child and Family Resource Council for her work.

Resau became seriously interested in science while working with a medic on an advisory team in the United States Army in Vietnam. Since then, he has become passionate about looking for objective, measurable information that will help develop badly needed tests to predict and diagnose cancer and Parkinson disease. "There must be a diagnostic test that we can base on proteins or genes," he said.

## Before VAI

- First degree in History and Economics from McDaniel College in Maryland; earned Ph.D. from University of Maryland School of Medicine
- U.S. Army (active duty and reserve assignments)
- Clinical lab work at Johns Hopkins Medical School and University of Maryland Hospital
- Tenured faculty member at the University of Maryland School of Medicine, Department of Pathology
- Director of Analytical, Cellular and Molecular Microscopy Laboratory in the Advanced BioScience Laboratories - Basic Research Program at the National Cancer Institute - Frederick Cancer Research and Development Center, Maryland

# Van Andel Education Institute

## Continuum of Learning

Van Andel Institute offers a full spectrum of training opportunities, supporting a continuum of learning that extends from elementary school to professional development.

### K-12

Science Academy Out-of-School-Time Program and Science on Saturday

GRAPCEP: Grand Rapids Area Pre-College Engineering Program

### College

Frederik and Lena Meijer Student Internship Program

GRMERC Medical Student Summer Research Internship Program

Bridges to the Baccalaureate

### Graduate/Ph.D.

VAI Graduate School

VAI-MSU Graduate School Program

NIH T-32 Training Program for Veterinary Students

### Postdoctoral

Postdoctoral Fellowships

### Professional Development

Science Academy Classroom Science Investigations

Educator Professional Development

## VAI Graduate School Welcomes New Students

The Van Andel Institute Graduate School marked the beginning of its second school year with an opening convocation held August 18 in VAI's Tomatis Auditorium.

The incoming class of three students, Rob Antecki, Jonathan Karnes, 28, and Laura Westrate, 22, will work closely with Van Andel Research Institute investigators with the goal of becoming Ph.D. scientists trained as leading scholars in cell, molecular and genetic biology relevant to human diseases.

"We have one goal clearly in mind," said VAI Graduate School Dean Steven J. Triezenberg, Ph.D. "We want to train professional scientists, not just teach material to students. The students trained here will be pioneers in the daunting task of understanding the intricacies of human health."

The VAI Graduate School doctoral program is designed to provide students with a wider view of the connections between academia, biotech firms and the pharmaceutical industry. An emphasis on translational research, which stresses converting basic science into applicable therapies, means that students will be exposed not only to the perspective of the research

scientist but will also gain insight into clinical practice and the pharmaceutical and biotechnology industries.

Westrate, a 2008 Hope College graduate, whose research interests include cell signaling, said that she was attracted to the program by the "top notch" facilities, small class size, and camaraderie she witnessed among faculty and students. The emphasis on practical training was also a factor.

"I wanted something that had a purpose," said Westrate. "Something that someone could take to the next step with a practical application."

Karnes, a 2003 Calvin College graduate, brings extensive laboratory experience to his studies, most recently as a clinical laboratory scientist at Spectrum Health's Molecular Biology Laboratory.

"There is a level of professionalism at VAI that I didn't see in other settings," said Karnes, whose research interests include cell signaling. "I don't mind skipping some of the things that you might find at



(l to r) Steve Triezenberg, Laura Westrate, Jonathan Karnes, and Rob Antecki

a traditional university."

Antecki, a 2007 Aquinas College graduate whose research interests include studying the aging process, worked for nearly a year as an assistant research technician in VARI's Laboratory of Cancer Genetics prior to entering the program. The graduate school's emphasis on translational research was a significant factor in his decision to study here.

"The paramount purpose of medical research is to ameliorate disease and elevate the human condition," said Antecki. "Anything that seeks to hasten these goals by transferring research outcomes from the lab to the clinical sector should be a significant draw to those who are seriously interested in this type of career."

## VAEI Director Gordon Van Harn to Retire

After seven years of leadership at the helm of Van Andel Education Institute (VAEI), Gordon Van Harn, Ph.D., has announced his retirement, effective January 1, 2009. Van Harn will continue to serve on the VAEI Board of Trustees and the VAI Graduate School Board of Directors.

Assuming the post of VAEI director will be VAI Graduate School Dean and VARI Scientific Investigator Steve Triezenberg, Ph.D.

"As much as we are excited about the future of VAEI under Steve's leadership, we are also grateful to Gord Van Harn for his seven years of exceptional leadership," said VAI Chairman and CEO David Van Andel. "Under his leadership Van Andel Education Institute has seen the founding of the Science Academy and the VAI Graduate School, has hosted important national and regional educational forums, and has changed its focus from technology to science education."

Van Harn's service at VAEI followed a long and distinguished career in academia. After undergraduate work at Calvin College, Van Harn received M.S. and Ph.D. degrees from the University of Illinois. He served for over thirty years as a faculty member of the Calvin College Biology Department where he taught physiology, undertook muscle and cardiovascular research, and served as provost and academic dean for the natural sciences.

Van Harn is credited by VAEI colleagues with giving shape to a mandate that was still somewhat broadly defined when he

came aboard in 2001. He is credited with working diligently to define the scope of the VAI Graduate School, securing its charter from the State of Michigan to confer degrees, and enlisting an excellent board of directors to guide its development.

"Gord's legacy also includes the manner in which those achievements have been carried out," said Triezenberg, "in which excellence is coupled with humility, and in which innovation and creativity are coupled with careful planning and thoughtful execution."

Van Harn acknowledges that the shifting of VAEI away from a focus on technology education to science education, which culminated in the opening of the Science Academy in 2006, and the development of the graduate school, which welcomed its inaugural class in 2007, are perhaps the most significant achievements of his tenure. Characteristically, however, he prefers to share the credit for both of these achievements with his colleagues.

"Both of these changes are a tribute to the support of David Van Andel, excellent appointments in Marcia Bishop and Steve Triezenberg, and collaboration of the faculty and staff of Van Andel Institute," said Van Harn.

VAEI Associate Director Marcia Bishop mentions Van Harn's integrity as a hallmark of his tenure while also suggesting a softer side coupled with a demand for excellence.

*continued on page 14*

## Frederik & Lena Meijer Internships Offer Intense Research Experience



In 2001, Fred and Lena Meijer gave a wonderful gift to the Institute – they began funding what would become the Frederik and Lena Meijer Student Internship Program. The summer program has allowed 80 college students to be mentored by professionals in their chosen research field, designing research experiments and using state-of-the-art scientific equipment and technology to work on Van Andel Research Institute projects. At the end of each summer, students present their findings to research staff.

The program began as a postdoctoral fellowship award in 2001. Following a competitive internal application process, Dr. Andrew Putnam, a postdoctoral fellow in Dr. Cindy Miranti's laboratory, was chosen to receive one year of support through the award. After Dr. Putnam left in 2002, the program was converted into a summer internship program in 2003.

Through an intense 10-week research experience, students learn what a career as a scientist is like. Michigan State University student Rachel Talaski also found that the internship helped her better understand what she had learned previously in the classroom, and prepared her for future studies. "I had a biochemistry class and actually understood the subject while others were struggling and just memorizing facts," said Talaski, who worked in the Laboratory of Structural Sciences.

In 2008, the program attracted over 150 applications from 13 states as well as Australia, Mexico, and Istanbul though no recruiting was done outside of the U.S.

## Running to Save Lives in Memory of a Loved One

**V**icki Kavanaugh's life has been touched profoundly by cancer. She lost her mother to breast cancer and her father to lung cancer, and this past June, she lost her younger sister, Krys Seligman, 38, to adenocarcinoma of the appendix.

Kavanaugh, 43, a runner for over 25 years, said that a visit to Van Andel Institute in July inspired her to prepare to run the 13.1 mile Grand Rapids Half Marathon and to raise money in Krys's memory, with the proceeds to benefit cancer research at the Institute.

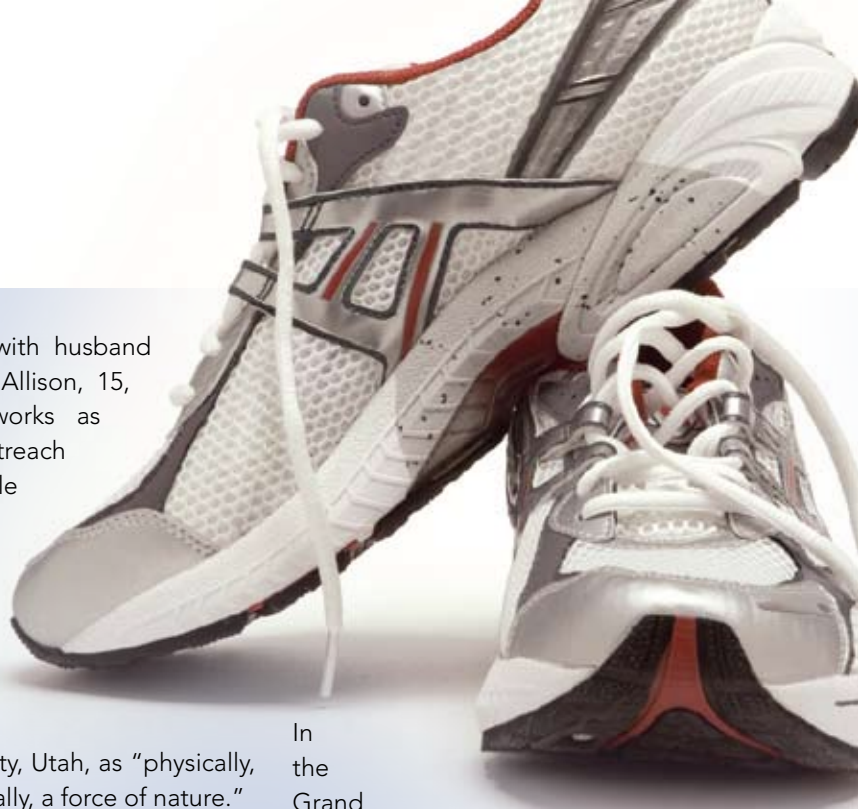
"At Van Andel Institute we found a place focused on how this many-faceted disease begins, how it can be treated and how it can be prevented," said Kavanaugh. "In the past few months alone they've made huge strides in discovering the cellular pathways that facilitate the development of this dread disease. It is a place filled with sunlight, hope and energy. Krys would have loved it."

Kavanaugh, a native of California, who has lived in the Holland and Zeeland

area for 15 years with husband Mark and children Allison, 15, and Austin, 12, works as a community outreach coordinator at Gazelle Sports in Holland. She refers to sister Krys, who fought a ten-month battle with the disease before dying this past June in Park City, Utah, as "physically, mentally and spiritually, a force of nature."

"Krys was the kind of person who would just light up a room when she walked in" said Kavanaugh. "And she loved to sing. At one time she was known as the 'singing sushi waitress.'"

Kavanaugh lost her mother, Charlotte Seligman, to cancer while a college freshman and her father, Curt Seligman, while she was in her twenties. Her husband, Mark, is a 14-year survivor of testicular cancer, and her father-in-law is also a cancer survivor. She said that cancer has permeated her life for the past 29 years and that she "is sick of it."



In the Grand Rapids Half

Marathon, held October 19, Kavanaugh placed 394th overall and 25th in her division, finishing in a time of 1:56:08, achieving her goal of finishing the race in less than two hours. As of press time, she was also well on the way to her fundraising goal, with pledges totaling over \$2,000.

"Everyone's life seems to be touched by cancer" said Kavanaugh. "It's time to do something about finding a cure, finding out how it starts, and then stopping it."

## VAEI Director Gordon Van Harn to Retire *(continued from page 13)*

"Gord cares deeply about this community and all of the children in it," said Bishop. "But he can also be a contrarian - someone who constantly challenges his colleagues to think past their own experience or bias."

"Gord has been a patient and reflective guide and teacher for me over the past two and a half years,"

said Triezenberg. "I'm delighted that he will remain a VAEI trustee and a member of the VAIGS board of directors, so that I can continue to tap his wisdom and judgment as we build further on the foundations that he has laid."

Triezenberg's own career includes a combination of excellence in the fields of scientific research and education. Following post-doctoral work at the

Carnegie Institution of Washington, he served for 19 years as a faculty member of Michigan State University's Department of Biochemistry and Molecular Biology where he became the Associate Director of the Graduate Program in Cell and Molecular Biology. In 2006, he accepted the dual role of Scientific Investigator in the Laboratory of Transcriptional Regulation and Dean of the Van Andel Institute Graduate School.

# Van Andel Institute Board of Governors

## Longtime Trustees Transition to Emeritus Status

Members of the Board of Governors support the Institute financially and are the ambassadors who share our mission, vision, and important work with others to help us gain further support to advance our efforts.

- |                            |                            |                                 |
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| Joseph and Susan Gavan     | Hendrik and Liesel Meijer  | Casey Wondergem                 |
| Dan and Lou Ann Gaydow     | Mark and Mary Beth Meijer  | <b>members as of 10/21/08</b>   |



On April 14, Van Andel Institute celebrated the birthdays of trustees Peter Cook (r) and Ralph Hauenstein (l). Both in their 90's, Cook and Hauenstein announced that they would transition to emeritus status at the event. The two successful businessmen and philanthropists have served on the VAI Board of Trustees for 12 years, since before the Institute opened its doors, and have been dedicated ambassadors for VAI.

## VAI Welcomes New Board Member



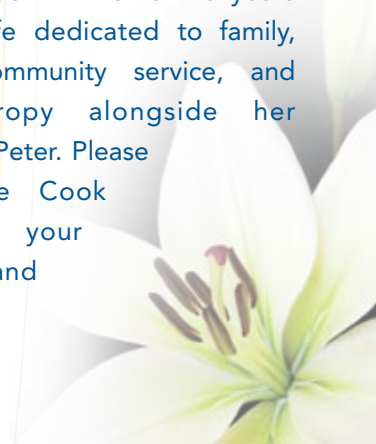
Juan R. Olivarez, Ph.D., former president of Grand Rapids Community College (GRCC) and current president and CEO of the Kalamazoo

Foundation, was appointed to the Van Andel Education Institute (VAEI) Board of Trustees on August 18. Olivarez joins current board members VAI Chairman and CEO David Van Andel, VAEI Director Gordon L. Van Harn, Ph.D., former Hope College President Gordon Van Wylen, Ph.D., and former Davenport University President Donald W. Maine.


Olivarez was president of GRCC from 1999 to 2008. He began his career in education in 1971 as a teacher with the Grand Rapids Public Schools (GRPS). His work for GRPS spanned 20 years during which time he also spent two years working in the Detroit Public Schools. During his career in education, Olivarez held positions as a school psychologist, supervisor of Elementary Special Education, director of High Incidence Programs & Services for Special Education, and executive director of Research & Development. In 1991, he became Dean of Institutional Research at GRCC and was promoted to Chief Executive Officer of the Community Learning Enterprise in 1996. Olivarez also serves many local, state and national educational and civic organizations.

## In Memoriam

Van Andel Institute recognizes the recent passing of a long-standing friend of the Institute – Pat Cook – who for 93 years led a life dedicated to family, faith, community service, and philanthropy alongside her husband Peter. Please keep the Cook family in your thoughts and prayers.



# Upcoming Events

All events are open to the public. Visit [www.vai.org](http://www.vai.org)  or call 616-234-5712 for more information or to join our e-vite mailing list!



**February 6:**  
**Winterfest Celebration**

Fine Grand Rapids cuisine, entertainment, a raffle and a chef auction at the University Club.



**April:**  
**Around the World Event at NAYA Bistro & Wine Bar**

Taste of 100 wines and sample cuisine from around the world.



**May:**  
**Van Andel Institute Golf Outing**

Play at the exclusive Wuskowhan Players Club.



**June:**  
**Johan's TriFest**

A triathlon in memory of Johan Visser.



Van Andel Institute®

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