think beyond the possible

annual report 2008-09

Case Western Reserve University  EST. 1826
To the Case Western Reserve Community:

Think beyond the possible.

The phrase is the title of our annual report, and the new tagline for our university.

Four words cannot begin to capture the complexity of our campus—the teaching and learning, the research and discovery, the outreach and engagement.

We defeat disease. We explain human origins. And we help others realize their immense potential.

We have so much to celebrate—and even more that we want to achieve.

This annual report highlights several of many marvelous feats. Members of our community identified the biological factors that allow smell to trigger memory. They used clay to make everyday products entirely biodegradable. And they proved that businesses can both do well and do good.

At some point in the past, every one of these examples appeared unattainable. Yet that didn’t stop people here from pursuing them. Instead, they chose to think beyond the possible.

I hope you enjoy this collection of stories. More, I hope you add to it with your own stories of how you think beyond the possible. Together, we can create a conversation that adds layer upon layer of meaning to this phrase—and, in turn, inspires still more accomplishments that exemplify it.

barbara r. snyder, PRESIDENT
“... the possibilities are endless.”

“You need to have a vision ...”

“... we found an unexpected result.”

“We try to create new ways of connecting different things ...”

The Case Western Reserve community was alive with inquiry, imagination and innovation during the 2008-2009 academic year. Our students, faculty, staff and alumni changed lives with their ideas as they pushed the borders of their fields and broke down barriers. As we embrace our new tagline—think beyond the possible—we share the variety of ways Case Western Reserve University is doing just that. Watch the stories featured here, and many more, at case.edu/thinkbeyond.
Start with clay.
Mix in blender with water and polymers.
Pour into molds and freeze-dry overnight.

Such is the recipe for success for David Schiraldi and his team of AeroClay® bakers. This eco-friendly process leads to eco-friendly products that pack a lot of power without tipping the scales.

Applications for their clay-based, lightweight, heat-resistant aerogels include magnets, electrical conductors, insulation, parts for windmills and airplane wings, and even kitty litter. Due to the freeze-drying process—which the team initially tried on a whim—all the foam-like products are about 96 percent air. The rest is brought to functionality based on whatever brings inspiration to Schiraldi and his team—which seems to be found just about everywhere they look.

We never thought we would take polymers from our lab and use them to make kitty litter, insulate your house or clean up oil spills in the ocean. There’s a whole variety of things we can do with these lightweight materials. The possibilities are endless.

david schiraldi, PHD, CHAIR OF MACROMOLECULAR SCIENCE AND ENGINEERING
watch his story and more at case.edu/thinkbeyond
Your grandmother’s perfume when she made you ice cream sundaes with sprinkles and just the right amount of chocolate sauce. Your dog’s wet, furry coat when you played in the puddles with your matching checkered rain boots and umbrella.

Thanks to a study devised by Yuan Gao, and a homemade laser microscope in Ben Strowbridge’s lab, we now understand much more clearly why our sense of smell is tied so closely to memory. Spurred by a study about how the loss of smell affects maternal instincts in sheep, Gao decided to analyze the olfactory bulb—the area of the brain where we process scents. It was also the only place in the brain where basic connections between cells had yet to be observed growing stronger during activity.

Gao and Strowbridge were finally able to pinpoint the specific pathway in the brain that changes as we process smells, and better understand its link to memory. Their study has ramifications for a plethora of neurological conditions, including Alzheimer’s disease—which involves memory loss.

Yuan Gao, PhD Student
Ben Strowbridge, PhD, Associate Professor of Neuroscience

watch their story, and more, at case.edu/thinkbeyond
According to the Ohio Legal Assistance Foundation, only one in five people who need legal help and can’t afford it actually get it. David Kutik (LAW ’80), a partner at the Cleveland office of Jones Day, is dedicated to helping fill this justice gap. Beyond offering his own services pro bono to those in need, Kutik has spent the last five years working to create a culture of pro-bono giving in Greater Cleveland.

While Cleveland is one of the poorest cities in the country, it also has a tremendous pool of legal talent, so Kutik sees the connection as a natural one. As president of the Cleveland Bar Association, Kutik encouraged an unprecedented 2,000 lawyers to contribute more than 70,000 hours of pro-bono service. Currently president of the board of the Legal Aid Society of Cleveland and chair of their pro bono committee, Kutik has helped the organization reach more people in need. Five years ago, they had no real presence in the community and had about 500 lawyers volunteering. This year, they will do 50 neighborhood clinics and have more than 1,500 active volunteers.

Kutik’s round-'em-up spirit was rewarded in 2008 with the American Bar Association’s Pro Bono Publico Award.

David Kutik, ALUMNUS

watch his story, and more, at case.edu/thinkbeyond
What is the best way for an institution to succeed?

According to Marilyn Sanders Mobley, the university’s inaugural chief diversity officer, it’s infusing diversity and inclusion into everything you do. It is her goal to help recruit, retain and promote a diverse population of faculty, staff, students and community partners, as well as to maintain a welcoming campus climate and include diversity in all matters, from curriculum to policies to programming.

The university has already affirmed its commitment to diversity and inclusion by creating the cabinet-level position Mobley holds and instituting extensive equal-opportunity policies across the board, such as offering benefits to domestic partners—regardless of gender. In the past year, Mobley’s office has created the Diversity Leadership Council—which includes representation from all schools and university-wide alliances—and established a diversity lecture series and annual award.

Each year, the university demonstrates its commitment to diversity with the Writing on the Wall project, when the campus community comes together to write various forms of hate language on a constructed wall before collectively tearing it down.

**marilyn sanders mobley, phd, vp for inclusion, diversity and equal opportunity**

watch her story, and more, at case.edu/thinkbeyond
In February, Chuck Fowler, a 1990 graduate of the Weatherhead School of Management Executive MBA Program and member of the university’s Board of Trustees, and his wife, Char, committed $7.5 million to the university to support the Fowler Center for Sustainable Value and establish a chaired professorship in sustainable enterprise.

Fowler, president and CEO of Fairmount Minerals Ltd.—the third-largest industrial sand producer in the country—has been a longtime champion of the importance of sustainable initiatives. He and David Cooperrider, the center’s faculty director, believe business can be an agent of world benefit and see sustainability as the No.1 business opportunity of the century.

Business can encourage eco-innovation, help bring peace to high conflict zones and even eradicate extreme poverty. At the same time, those ventures can be profitable. From solar panels to drinking-water filters, social entrepreneurship can be the new face of capitalism—and improve the planet.

chuck fowler, university trustee
david cooperrider, phd, faculty director of the fowler center for sustainable value

watch their story, and more, at case.edu/thinkbeyond
From a simple start of passing out peanut butter and jelly sandwiches and ramen noodles to homeless people in Cleveland, Bryan Mauk now spearheads a program to help the homeless get off the streets.

The Metanoia Project—after the Greek word for “reversal of thinking”—buys foreclosed homes and employs homeless laborers to refurbish them before they are sold to people who have lived on the streets. The profits go to support the project’s other goal—opening Cleveland’s first overnight drop-in center. Mauk founded the organization when he won a William E. Simon Fellowship for Noble Purpose.

A homeless advocate since high school, Mauk’s years getting to know homeless individuals has helped him identify goals that will meet their needs. Different from residential shelters, drop-in centers can seem less threatening and provide a warm place to eat, socialize, rest and plug into social services.

Currently pursuing his master’s degree at the Mandel Center for Nonprofit Organizations, Mauk hopes to expand the program and continue learning how to be an even better steward of the homeless.

bryan mauk, MASTER’S STUDENT

watch his story and more at case.edu/thinkbeyond
It’s putting cognitive scientists, anthropologists, cosmologists, medical scientists and biologists in continual conversation. It’s bringing together everyone interested in how things emerge out of nothing. It’s the Institute for the Science of Origins, launched at the university to advance our knowledge of all things evolutionary.

Led by Glenn Starkman, the institute has created a new program to study human origins and see not only how humans evolved from apes, but how abstract thinking emerged. It also formed a new center to study dark matter—and locate the material that seems to hold the galaxy together even though it doesn’t shine or absorb light. Finally, the institute will pioneer the new discipline of evolutionary medicine to understand not only why people get sick, but also how we came to be susceptible to diseases and how we can use evolution to help cure them.

All of 2008–2009 became a celebration of origins science when the university designated it the Year of Darwin, and held events across campus celebrating the 150th anniversary of the publication of Charles Darwin’s seminal text The Origin of Species.

glenn starkman, PhD. DIRECTOR OF THE INSTITUTE FOR THE SCIENCE OF ORIGINS

watch his story, and more, at case.edu/thinkbeyond
**Financial and Statistical Highlights 2008-09**

**Operations**
- Total operating surplus: $1.3 million
- Total operating revenue: $881.8 million
- Total operating expense: $880.4 million

**Endowment Funds** (market value, June 30, 2009)
- $1.4 billion

**Gifts and Pledges from Private Sources** (fall 2009)
- $108.7 million

**Research**
- Sponsored research training and projects: $379.5 million

**Technology Transfer**
- Total licenses (to date): 250
- Total licensing revenues: $16.3 million

**Degrees Awarded**
- Undergraduate: 958
- Masters: 964
- PhDs: 200
- Other Doctorates (JD, MD, DMD, DNP, EDM): 550

**Degrees by School**
- College of Arts and Sciences: 625
- Case School of Engineering: 462
- Frances Payne Bolton School of Nursing: 244
- Mandel School of Applied Social Sciences: 168
- School of Dentistry: 84
- School of Law: 252
- School of Medicine: 377
- Weatherhead School of Management: 460

**Enrollment**
- (Fall 2009)
  - Undergraduate: 4,228
  - Graduate and Professional: 5,510
  - States represented: 50
  - Countries represented: 82

**Campus**
- Faculty (full-time): 2,740
- Staff (full-time and part-time): 3,111
- Campus Size: 155 acres

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*Revenues and expense figures per Statement of Activities.
Operating surplus (deficit) figures per Statement of Operations (unaudited).
Endowment funds figure per university financial statements.
Gifts and pledges figure per internal accounting (unaudited).
All figures rounded.*
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Robert Clarke Brown  
Treasurer

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For a listing of the most current trustees, including emeriti, please visit case.edu/bot.
## our team

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## how you can participate

Are you a member of the Case Western Reserve community? We want to hear how you think beyond the possible. Submit your story at [case.edu/thinkbeyond](http://case.edu/thinkbeyond).