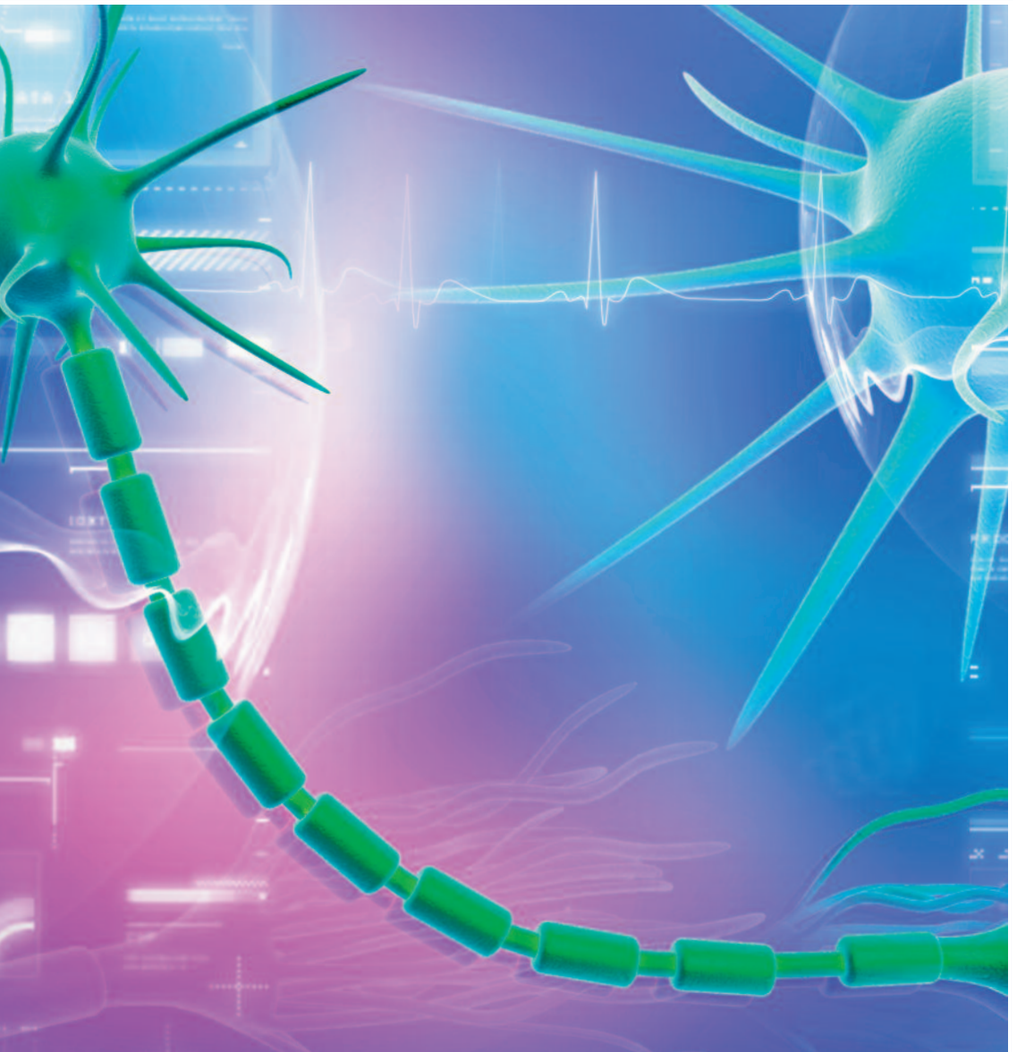
DIVISION of SCIENCE and RESEARCH

a good investment for west virginia



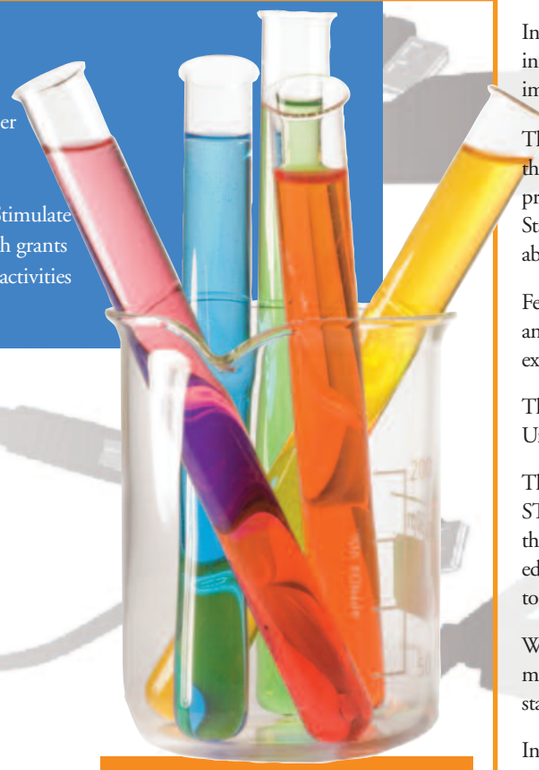
2013-14

fiscal years in review

about the **DIVISION** of **SCIENCE** and **RESEARCH**

The Division of Science and Research of the West Virginia Higher Education Policy Commission provides strategic leadership for infrastructure advancement and development of competitive research opportunities in science, technology, engineering and mathematics disciplines. The Division is guided by a 14-member Science and Research Council.

The office directs the National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCoR) in West Virginia, coordinates scientific research grants to academic institutions from federal and state agencies, and conducts outreach activities to broaden the public's understanding of science and technology.



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1018 Kanawha Boulevard East, Suite 1101
Charleston, W.Va. 25301
304-558-4128

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GREETINGS from the Director of Research

Investing in research improves education, creates jobs and steers youth toward careers in Science, Technology, Engineering and Mathematics (STEM) disciplines, all while improving our society's way of life and knowledge.

The FY13 and FY14 years in STEM were both good and not so good. On one hand, the investment in research and education by the National Science Foundation (NSF) provided strong results at West Virginia University, Marshall University and West Virginia State University. On the other hand, the reduced Research Challenge Fund limited our ability to fund research and education grants at our regional colleges.

Federal grant funds have nearly tripled since 2000 and overall grant expenditures by our state colleges and universities have increased by 2.5 times. Since the stimulus money has ended, academic research expenditures have decreased slightly and our ranking among all the states for research expenditures is 42nd.

The number of research centers at Marshall University, West Virginia State University, West Virginia University and other institutions of higher education has grown tremendously in the past decade.

The number of students majoring in science, technology, engineering and mathematics – our crucial STEM fields – has steadily increased since 2004. According to the STEM Education Coalition, by 2020 there will be over 1 million new STEM jobs available across the United States, hence building a STEM-educated workforce here in West Virginia is critical for our state's future job growth and for our citizens to be able to compete in this growing STEM job market.

We pursue academic research because it is an investment. Every dollar invested in academic research brings more dollars back to West Virginia and provides better educational and economic opportunities for our state and its residents.

In West Virginia, the Science and Research Council, which guides the Higher Education Policy Commission's Division of Science and Research, has a Vision: By 2025, Science, Technology, and Engineering are WV's Leading Economic Growth Drivers Attracting Investments, Creating Jobs, and Improving Our Quality of Life.

West Virginia embraces Vision 2025 as the state continues to diversify and transform its traditional extractive industrial base to a more high-tech, knowledge-based economy. The Carnevale report from the Georgetown University Center on Education and the Workforce indicates that nearly 50 percent of all jobs in West Virginia will require a degree beyond high school by 2018. Each year thereafter, that figure increases by a point.

We have made great progress, but there is still so much to do. The Governor, the Legislature and West Virginians across the state need to build support for research at our universities. Supporting an innovative climate at our institutions improves overall education of our citizens and creates new opportunities for our state.

Jan Taylor, Ph.D., Director of Research Programs, State EPSCoR Director

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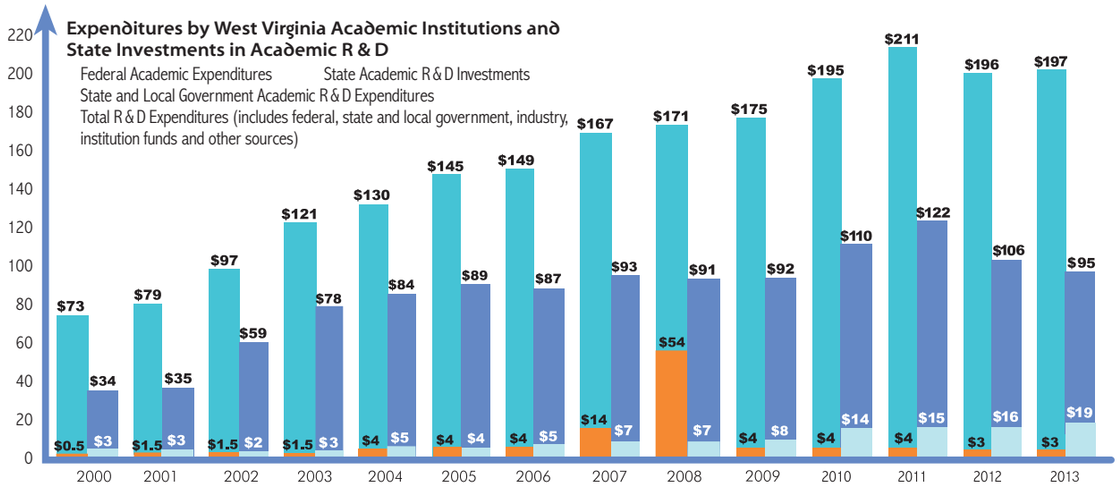
Federal and State Research Investments in West Virginia Higher Education



2013

August 2010
West Virginia receives $1 million NSF grant for high tech infrastructure.

September 2010
With a theme of Sustainability, the 3rd bi-ennial Science, Technology and Research (STaR) Symposium is held at Marshall University. Denialism author Michael Specter is keynote speaker. An audience of 135 faculty, students, staff and stakeholders attend.

The state receives its third National Science Foundation Research Infrastructure Improvement Award – this one for $20 million over five years, the largest single NSF grant in West Virginia history. Partnering West Virginia University, Marshall University, and West Virginia State University, the "Bionanotechnology for Enhanced Public Security and Environmental Safety" study has the potential to create new technologies that significantly impact security, the environment, and medicine, as well as the jobs to manufacture those new innovations.

December 2010
Following a generous donation from Union Carbide Corporation, a subsidiary of The Dow Chemical Company, the state receives 258-acres of land and facilities that become the West Virginia Regional Technology Park. The Division of Science and Research begins the process of converting the donation into a diversified, multi-tenant research, development, education and commercialization park focused on energy, chemicals and materials, and biotechnology.

January 2011
Mountain State Science segments debut on West Virginia Public Television. The segments run during WVPB's "This Week in West Virginia" program. Six in-depth stories about research in West Virginia are broadcast. Those segments can be viewed on www.wvresearch.org.

The Division announces nearly $600,000 in scientific research and STEM education grants to 12 colleges and universities in West Virginia, including Research Trust Fund, Instrumentation, Innovation, SURE and Mini-Grant program awards. The announcement is made as scores of undergraduate students present their research at the State Capitol at Undergraduate Research Day.

2014

August 2011
The Division of Science and Research begins a comprehensive review of Vision 2015, the West Virginia Science and Technology Strategic Plan, involving faculty and researchers as well as science and technology industry representatives from across the state.

The West Virginia Regional Technology Park board of directors holds its first meeting to begin operations of the WVRTP, on behalf of the Higher Education Policy Commission.

U.S. Economic Development Authority grants $5.25 million for laboratory building renovations to the West Virginia Regional Technology Park.

September 2011
Dr. Phillip J. Halstead begins as the first president and executive director of the West Virginia Regional Technology Park.

October 2011
The Division of Science and Research hosts National Science Foundation Communicating Science seminar to help about 100 researchers and academic scientists better explain their work to the public.

January 2012
More than 100 undergraduate students present their research findings at Undergraduate Research Day at the West Virginia Legislature while the Division of Science and Research awards $300,000 to researchers at state higher education institutions.

A public awareness information campaign about the value of research to the state debuts on West Virginia Metronews network and its website, **www.wvmetronews.com**. The campaign features WVU researcher Letha Sooter and Marshall's Tina Cartwright.

West Virginia University announces that donors have invested the full $35 million to fulfill its portion of the Research Trust Fund, matching the $35 million the state of West Virginia allocated in 2008. WVU calls for the West Virginia Legislature to renew the program with another large investment.

April 2012
Fourth biennial STaR Symposium held at West Virginia State University as a joint meeting with the West Virginia Academy of Science. The record 350 attendees hear keynote presentations by NASA scientist Gentry Lee, U.S. Senator Jay Rockefeller and NSF Director Subra Suresh.

May 2012
Dr. Paul Hill, long-time vice chancellor for Science and Research, is selected as Chancellor of the West Virginia Higher Education Policy Commission.

June 2012
More than 100 graduating high school seniors from 12 countries visit the West Virginia Regional Technology Park for Day 1 of their two month stay in West Virginia with National Youth Science Camp.

selected researcher profiles

West Virginia scientists and their students are doing great things, and their work has the potential for better disease treatments, better energy efficiency and a diversified West Virginia economy among other exciting developments. The best part is that these researchers are leveraging state and federal investments to make new discoveries and are simultaneously creating opportunities for the leaders of tomorrow's high-tech workforce.

The following profiles highlight some of these researchers. Faculty members included are from Alderson-Broaddus College, Marshall University, Shepherd University, West Virginia University and West Virginia State University.

DR. BIN WANG

Marshall University

Dr. Michael Norton, said, "Bin Wang is one of the rare scientists who has the combination of breadth of experience and depth of understanding. She has the inventiveness and entrepreneurial spirit we were looking for to lead a 21st century analytical chemistry research group."

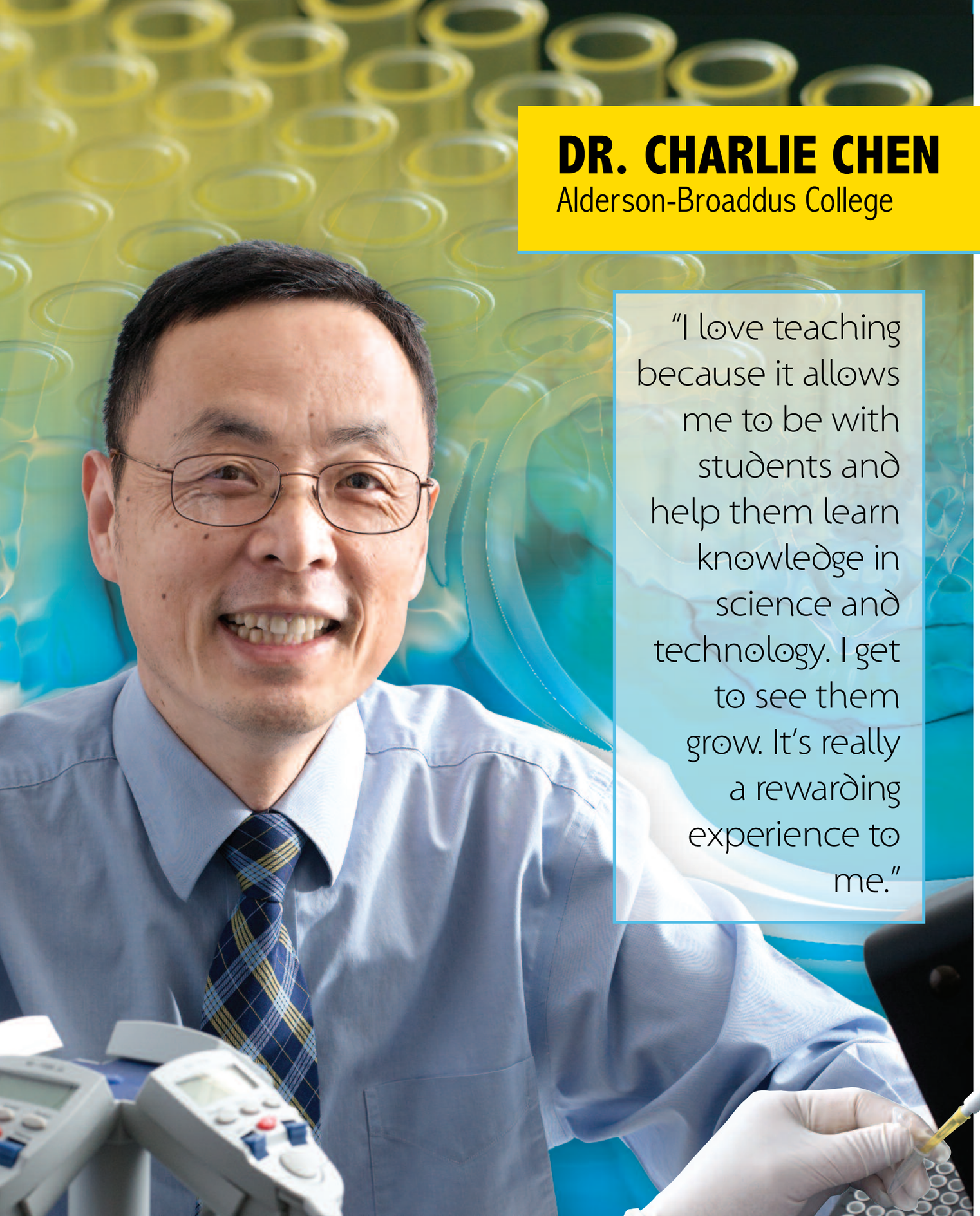
Growing up, Bin Wang had no problem finding a role model to inspire her to pursue a career in science.

Her father was an organic chemist and her mother was a physician.

Those examples instilled a work ethic, curiosity and a desire for adventure that has led the Beijing, China, native to Marshall University. Today, she is an assistant professor, teaching and conducting research in the field of analytical chemistry, and a key member of Marshall's Interdisciplinary Research Team 3 working on a National Science Foundation grant awarded through the EPSCoR program (Experimental Program to Stimulate Competitive Research).

DR. CHARLIE CHEN

Alderson-Broaddus College

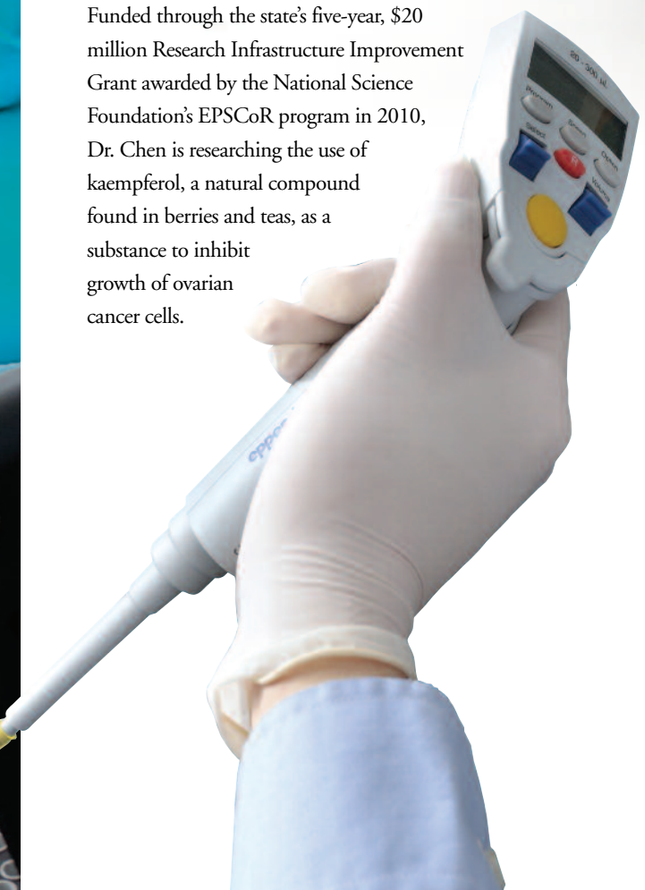


"I love teaching because it allows me to be with students and help them learn knowledge in science and technology. I get to see them grow. It's really a rewarding experience to me."

Dr. Charlie Chen, a professor of biology at Alderson Broaddus (AB) College has a goal of sustaining the level of research he's helped create at the 800-student private college in the north-central West Virginia.

From the laboratories at AB's Kemper Redd Science Center, Dr. Chen is collaborating with researchers from other institutions working on several cancer studies. In a two-year, $100,000 Research Incubator Grant, he is working with Dr. Bingyun Li of West Virginia University in a study titled 'Nanochemoprevention as a novel approach to cancer control.'

Funded through the state's five-year, $20 million Research Infrastructure Improvement Grant awarded by the National Science Foundation's EPSCoR program in 2010, Dr. Chen is researching the use of kaempferol, a natural compound found in berries and teas, as a substance to inhibit growth of ovarian cancer cells.



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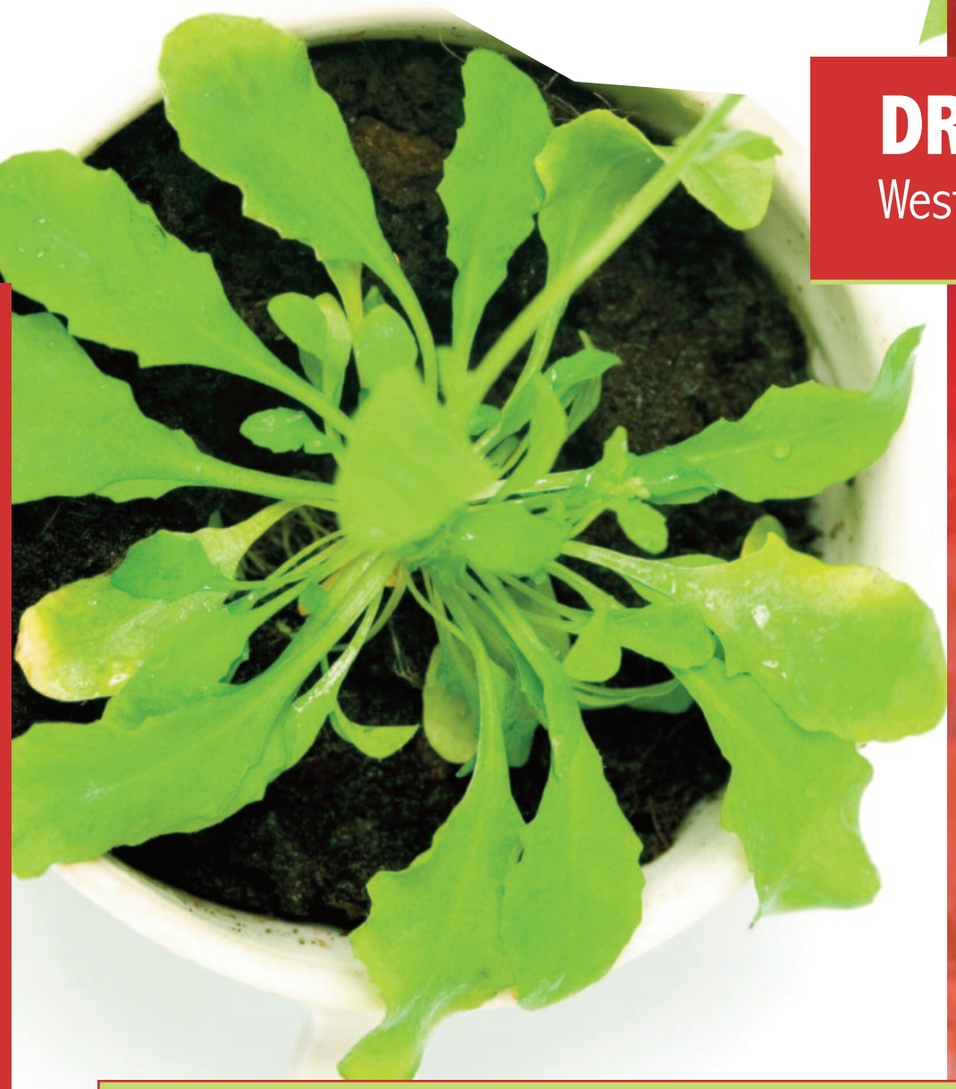
DR. BARBARA LIEDL

West Virginia State University



"West Virginians spend more than $7 billion on food. Less than one percent of that is spent on food grown in the state. All of us in agriculture are committed to changing that. We want to see more food produced for consumption in state."

Dr. Barbara Liedl likes to grow things. The associate research professor at West Virginia State University is well known for the varieties of tomatoes she and her students cultivate. Bell peppers and chili peppers are another frequent harvest. She and her students cross certain plants with others and study the DNA, working to find specific genetic traits to develop strains that will resist disease, resist insects or grow better in certain conditions, such as in a greenhouse or high tunnel instead of an outdoor garden.

And while her labors produce some bright red, green and yellow scientific results, the vegetables she grows at WVSU's Agricultural and Environmental Research Station are not necessarily her most important crop. Throughout southern West Virginia, Dr. Liedl is sowing seeds of growth. She's working with growers, economic developers, government agriculture departments and community organizations to grow a network of small farms that can supply the region with fresh, locally grown produce while benefiting the local economy.

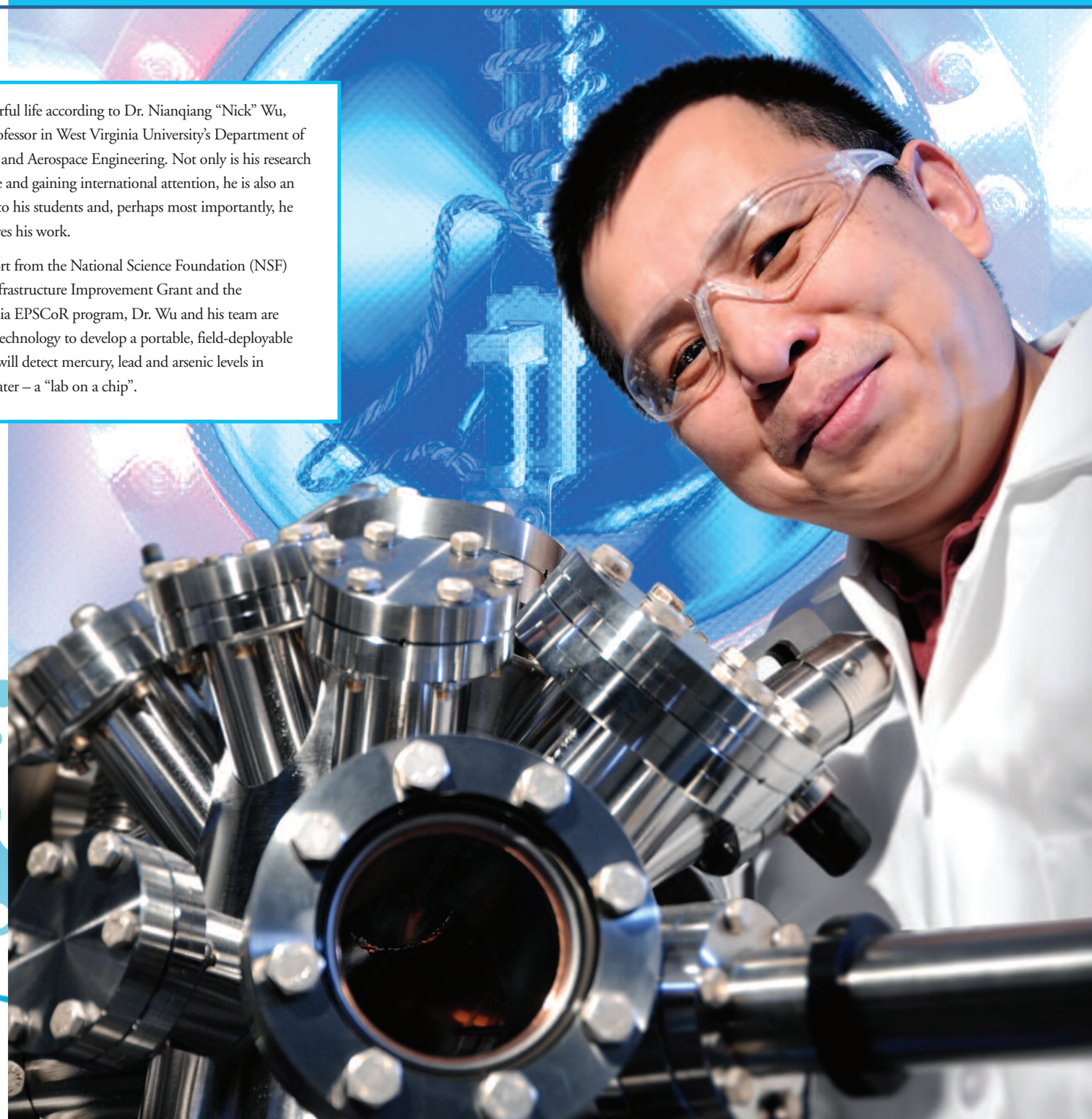
DR. NIANQIANG “NICK” WU

West Virginia University

It’s a wonderful life according to Dr. Nianqiang “Nick” Wu, associate professor in West Virginia University’s Department of Mechanical and Aerospace Engineering. Not only is his research cutting edge and gaining international attention, he is also an inspiration to his students and, perhaps most importantly, he sincerely loves his work.

With support from the National Science Foundation (NSF) Research Infrastructure Improvement Grant and the West Virginia EPSCoR program, Dr. Wu and his team are using nanotechnology to develop a portable, field-deployable sensor that will detect mercury, lead and arsenic levels in bodies of water – a “lab on a chip”.

“The luxury of being able to test water and know within minutes, rather than days, if it contains high levels of mercury will be invaluable.”



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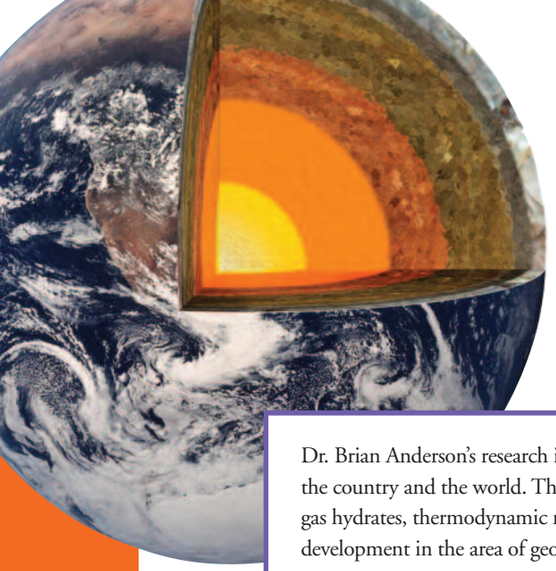
DR. ANDREW NICHOLS

Marshall University

"I enjoy conducting applied practical research that the WVDOT has the opportunity to put into immediate use."

The research Dr. Andrew Nichols is doing as an associate professor of engineering at Marshall is funded by the West Virginia Department of Transportation (WVDOT). His research promotes ways to make West Virginia roads and intersections safer and more efficient. He conducts research in conjunction with the Nick J. Rahall Appalachian Transportation Institute (RTI) at Marshall University - a leader in multimodal transportation and economic development in West Virginia and the Appalachian Region.

One of Nichols' projects involves evaluating the Intelligent Transportation System (ITS) that West Virginia put into place a few years ago. The overall goal of implementing ITS is to make it possible for drivers to make informed decisions while traveling - through the placement of digital message signs along highways. Nichols will be using speed data collected by INRIX, which has a popular smart phone app targeted for motorists, to evaluate performance of major roads in the state. He and his team will examine this data to identify recurring trends in congestion as well as impacts of incidents, such as crashes and construction. This research will provide the WVDOT with quantitative tools to identify trouble spots and evaluate potential projects.



DR. BRIAN ANDERSON

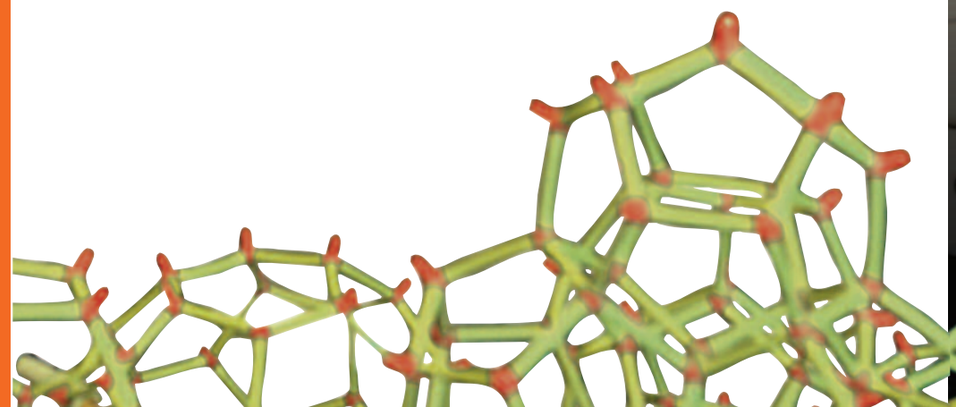
West Virginia University

Dr. Brian Anderson's research is well-timed for the state of West Virginia, the country and the world. The thrust of his work is in the areas of natural gas hydrates, thermodynamic modeling and sustainable energy and development in the area of geothermal systems.

A 2010 Science Magazine article titled "West Virginia is a Geothermal Hot Spot" reported adiscovery that the state sits atop several hot patches of Earth - some as warm as 200°C and as shallow as 5 kilometers. The magazine writer concluded that if engineers would be able to tap the heat, then West Virginia could become a producer of green energy for the entire region.

Anderson and his team at WVU are working on just that. They intend to find the most feasible ways to harness these hot spots. One approach they are working through involves directing CO2 into the ground through rock to bring the heat up – rather than using water. He said that even relatively low geothermal temperatures, such as those which are found in West Virginia, could be used produce electricity in the future.

"My ultimate goal is to find more viable indigenous energy sources. I want to leave a mark and show the world how great our state is."



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DR. SHER HENDRICKSON-LAMBERT

Shepherd University

At Shepherd University, Dr. Sher Hendrickson-Lambert is conducting an extensive comparison between the genotypes of horses with the DNA from their faraway ancestors with a goal of discovering exactly how the modern-day horses have adapted to a life vastly different than their homeland. Through it, she hopes to learn how the genomes of animals change when they are put in new circumstances. This type of research and subsequent findings could save endangered animals in the future.

Hendrickson-Lambert aims to build up something akin to The Frozen Zoo® at the San Diego Zoo Institute for Conservation Research at Shepherd. She calls her version the "Laboratory of Genomic Diversity-Shepherd University", and she received $40,000 from West Virginia's Research Challenge Fund this year to develop it.

Her ultimate goal is to focus efforts on collecting Appalachian-specific samples. She plans to ask questions about genetic diversity, resilience to disease or adaptability to learn how to save animals that are threatened by habitat loss and global warming in the region.

FEDERALLY FUNDED PROGRAMS

Experimental Program to Stimulate Competitive Research

West Virginia is one of 31 U.S. states and territories eligible to participate in the National Science Foundation's Experimental Program to Stimulate Competitive Research (EPSCoR) initiative. In West Virginia, EPSCoR is administered by the Higher Education Policy Commission's Division of Science and Research and overseen by the Science and Research Council.

The National Science Foundation established EPSCoR in 1979 in response to congressional concerns about the geographic concentration of federal support for academic research. The program is intended to enhance the research capability of scientists in states that traditionally lacked strong university-based research efforts and help them compete for a portion of the federal academic research and development budget.

The program helps eligible states improve their competitiveness largely through Research Infrastructure Improvement (RII) awards. These awards of up to $4 million annually for five years support research infrastructure improvements in areas selected by the state as critical to its long-term economic development and science and technology competitiveness.

The goals of West Virginia's EPSCoR program are to:

- Sponsor and maintain world-class research;
- Develop academic resources, a skilled workforce and a competitive research infrastructure;
- Encourage the transfer of technology to support economic growth, jobs and life enhancement;
- Encourage participation of K-12, women, rural underserved and minorities in science, technology, engineering and mathematics;
- Maintain a focus within state government to attain these goals statewide.

RESEARCH INFRASTRUCTURE Improvement Awards

West Virginia has received three RII awards from NSF over the years, including a five-year, $20 million award in September 2010 titled "Bionanotechnology for Public Security and Environmental Safety" that will wrap up in July 2015.

That federal grant was matched with $2 million in state funds and $2 million from the participating institutions: Marshall University, West Virginia State University and West Virginia University.

Under the grant, researchers are working to bring together bionanotechnology and molecular sciences to create hand-held devices – essentially laboratories on a chip – that can remotely identify potential environmental threats, pollutants and even diseases.

This technology could have widespread and significant impacts on security, environment and medicine. Innovations in these areas have the potential to create new marketable technologies and devices – and the jobs to manufacture them.

In addition, smaller institutions of higher education across West Virginia have the opportunity to collaborate with the three participating universities on this groundbreaking research and position themselves for additional funding of their own.

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STATE FUNDED PROGRAMS

West Virginia Research Challenge Fund

The **Research Challenge Fund** provides the foundation for many of the competitive grant programs administered by the Division of Science and Research. The fund's establishment in 2004 by the West Virginia Legislature is evidence of West Virginia's ongoing commitment to supporting science and technology research and education.

The largest awards from the fund are **Research Challenge Grants**, which support the creation of research centers and foster economic development and workforce advancement at the state's two research universities, Marshall and West Virginia.

Other programs supported by the fund are:

- **Instrumentation Grants**, which fund scientific equipment for advanced undergraduate laboratories and
- **Mini-Grants**, which provide summer stipends for faculty members to prepare research or research equipment proposals.

Since 2005, the Research Challenge Fund has awarded approximately $28 million for research, supporting 19 institutions across West Virginia.

West Virginia Research Trust Fund

Also known as Bucks for Brains, the Research Trust Fund is an endowment that allows Marshall University and West Virginia University to double private gifts that support expansions to research faculty and infrastructure in key areas linked to economic development, health care and job growth.

Then-Governor Joe Manchin proposed the initiative in his 2008 State of the State Address, saying the investment is necessary for West Virginia to stimulate world-class research and development and to reap the related benefits of high-tech, high-wage industries.

The Research Trust Fund came to life with Senate Bill 287, passed by the West Virginia Legislature on March 8, 2008. The $50 million for the fund came from surplus state revenue.

The goal of the trust fund, similar to successful programs in other states, is to strengthen the most promising research departments at Marshall University and West Virginia University – ultimately leading to business spin-offs, new patents and job creation. The state's four-year colleges and universities and the West Virginia School of Osteopathic Medicine also benefit from the program through grants for research supported by interest earned on the trust fund.

The trust fund supports research in energy and environmental sciences; nanotechnology and materials science; biological, biotechnical and biomedical sciences; biometrics, security, sensing and related information technologies; and gerontology.

The legislation gave Marshall and West Virginia University until 2015 to obtain private gifts to match their allocations. By January 2012, WVU had received total gifts to match all of its $35 million allotment. Marshall received gifts totaling its $15 million allotment by January 2013.

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OUTREACH and EDUCATION INITIATIVES

The Neuron

The Neuron, West Virginia's quarterly journal of science and research, is produced by the Division of Science and Research. It contains feature articles about West Virginia researchers and other news and is mailed to over 2,000 subscribers. It is also available online in pdf format at www.wvresearch.org.

Website

The Division's Website, www.wvresearch.org, features the latest news and information about the state's research community. It also serves as a repository of information for faculty, researchers and others on grant opportunities, discoveries, work of West Virginia researchers, outreach and education activities and more.

Twitter & Facebook

The Division actively uses social media as part of its outreach initiative to get its message of science and research to a growing number of West Virginians who are engaged in online media.

STaR Symposium

The biennial Science, Technology and Research (STaR) Symposium serves as a forum for the state's science and technology enterprise. Higher education faculty members, researchers, students, state policymakers and members of the business community gather at the event to share research developments, ideas and collaborations.

The October 2013 symposium in Morgantown, West Virginia titled, The Evolution of Energy: From Scarcity to Abundance, focused on the issues surrounding energy development and use and highlighted the challenges and opportunities in the state. Presenters discussed a host of topics, including: West Virginia's increasingly diverse energy portfolio; the long-term future for coal; the impact of shale gas technology; energy research underway in the Mountain State and programs to address energy efficiency and workforce development.

Nanooze, the magazine

In Spring 2013 as well as the fall of 2014, the Division of Science and Research published a West Virginia version of Nanooze, the magazine. The magazine was targeted to middle school science students with the goal of further interesting them in Science, Technology, Engineering and Mathematics.

STATE GRANTS PROGRAMS

Grants to Institutions for Research Infrastructure

West Virginia Research Trust Fund

This program allows the state's two research universities to double private gifts that support expansions to research faculty and infrastructure in key areas linked to economic development, health care and job growth. This "Bucks for Brains" fund supports research in energy, biotechnology, biomedical, identification technology, material science and engineering, environmental science and gerontology. Private gifts are matched dollar-for-dollar.

Eligibility: West Virginia University and Marshall University are eligible. The state's other public four-year institutions of higher education, as well as the West Virginia School of Osteopathic Medicine, are eligible to apply – by responding to specific requests for proposals – for matching grants supported by the interest earned on the trust fund.

See page 23 for more on the Research Trust Fund

Grants to Institutions for Student Programs

STEM Fellows Program

This grant program helps recruit and support outstanding graduate students in STEM (science, technology, engineering and mathematics) fields. Grants are awarded to institutions for the purpose of providing fellowships to graduate students.

Eligibility: Full-time faculty, deans and academic administrators at West Virginia University and Marshall University are eligible.

SURE Program

These grants help colleges and universities provide Summer/Semester Research Experiences to undergraduates in STEM fields. Grants are awarded for the purpose of providing small research stipends to undergraduate students.

Eligibility: Full-time faculty, deans and academic administrators at all four-year institutions of higher education in West Virginia are eligible.

Grants to Faculty Members

Instrumentation Grants

This program purchases scientific equipment for advanced undergraduate laboratories to help encourage undergraduate students in West Virginia to continue careers in science, mathematics and engineering.

Eligibility: Full-time faculty at the primarily undergraduate institutions in West Virginia may apply; West Virginia University and Marshall University faculty are not eligible.

Mini-Grants for Proposal Preparation

These grants aid faculty members in the preparation of research or research equipment proposals for submission to external agencies or foundations. This program may support the applicant in collection of preliminary data, idea development or dedication of time to focus on a larger research program and proposal.

Eligibility: Tenure and tenure-track faculty at all four-year institutions of higher education in West Virginia are eligible.

Research Challenge Grants

This grant program supports large, focused STEM research projects that may lead to research centers and economic development. Projects should assist the institution in its ability to successfully compete for external funding on a national and international basis by providing incentives to significantly increase capacity.

Eligibility: Full-time faculty or research professors at all four-year institutions of higher education in West Virginia are eligible.

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STATE GRANTS AWARDS Fiscal Year 2013

Federal Grant Match

David Lederman	*West Virginia University*	$223,938
John Maher	*Marshall University*	$111,020
Jose Toledo	*West Viringia State University*	$47,850
Michael Norton	*Marshall University*	$6,250
Bingyun Li	*West Virginia University*	$5,000

Innovation Grants

Sher Hendrickson-Lambert	*Shepherd University*	$40,000

Instrumentation Grants

Dr. Horng-Jyh Yang	*West Virginia University Institute of Technology*	$20,000
Theunis G van Aardt	*West Liberty University*	$20,000
Dr. Laura Robertson	*Shepherd University*	$20,000
Dr. Michael A. Kirkpatrick	*Wheeling Jesuit University*	$20,000
Micheal W Fultz	*West Viringia State University*	$20,000
Dana Alloway	*Concord University*	$12,892
Dr. Jacquelyn Cole	*Shepherd University*	$20,000

Opportunity Grants

Suzanne G Strait	*Marshall University*	$5,000
Thomas E Wilson	*Marshall University*	$4,420
Suzanne G Strait	*Marshall Universityy*	$1,629
Marcie L Raol	*Fairmont State University*	$1,000
Candy Cordwell	*West Virginia University*	$5,000
Dr Anthony B Szwilski	*Marshall University*	$500
Keith Garbutt	*West Virginia University*	$4,000
Candy Cordwell	*West Virginia University*	$5,000
Deb Hemler	*Fairmont State University*	$1,000

Research Challenge Grant Program

David Lederman	*West Virginia University*	$210,000
Richard Niles	*Marshall University*	$200,000
Xingbo Liu	*West Virginia University*	$200,000

Research Proposal Mini-Grant Program

Gifty Osei-Prempeh	*West Virginia University Institute of Technology*	$6,000
Gary E Schultz Jr.	*Marshall University*	$6,000
Dr. Bingyun Li	*West Virginia University*	$6,000
Gou-Zhang Zhu	*Marshall University*	$6,000
Dr. Joseph W McFadden	*West Virginia University*	$6,000

Summer/Semester Undergraduate Research Experience

Katherine Harper	*West Viringia State University*	$20,000
Dr. Colleen J Nolan	*Shepherd University*	$60,000
Dr. Michael Norton	*Marshall University*	$20,720
Joseph A Horzempa	*West Liberty University*	$52,000
Ryan Claycomb	*West Virginia University*	$-

STEM Fellows

Dr. Todd Green	*Marshall University*	$200,000
Katherine Karraker	*West Virginia University*	$249,150

Fiscal Year 2013

STATE GRANTS AWARDS Fiscal Year 2014

Federal Grant Match

David Lederman	*West Virginia University*	$169,915
John Maher	*Marshall University*	$111,020
Jose Toledo	*West Viringia State University*	$46,456
Gerald Hankins	*West Viringia State University*	$5,000
Bingyun Li	*West Virginia University*	$5,000

Innovation Grant

Stephen D Goodman	*West Virginia University Institute of Technology*	$30,000

Instrumentation Grant

Warren Calderone	*Shepherd University*	$20,000
Sara J Sawyer	*Glenville State College*	$5,945
Stephen C Kuehn	*Concord University*	$15,378
Ralph L Wojtowicz	*Shepherd University*	$19,069
Mingyu Lu	*West Virginia University Institute of Technology*	$20,000
Jennifer L Franko	*Bethany College*	$19,995

Opportunity Grants

Dr. Venkat N Gudivada	*Marshall University*	$5,000
Cyanne E Loyle	*West Virginia University*	$13,000
Keith Garbutt	*West Virginia University*	$8,400
Linda Vona-Davis	*West Virginia University*	$1,500
Michelle Poland	*Fairmont State University*	$1,000
Derrick R Kolling	*Marshall University*	$3,000
Dr. Massimo Bardi	*Marshall University*	$905
Candy Cordwell	*West Virginia University*	$8,000
Anne Barth	*TechConnect*	$1,000
Dr. John Maher	*Marshall University*	$144,000

Research Challenge Grant

David Lederman	*West Virginia University*	$364,000
Richard Niles	*Marshall University*	$350,000
Xingbo Liu	*West Virginia University*	$350,000.00

Research Proposal Mini-Grant Program

Kaushlendra Singh	*West Virginia University*	$5,000
John F Rakus	*Marshall University*	$5,000
Dr. Deborah Chun	*West Virginia University Institute of Technology*	$5,000
Joseph L. Allen	*Concord University*	$5,000
Dr. Vagner A Benedito	*West Virginia University*	$5,000
Dr. Rosalynn Quinones	*Marshall University*	$5,000

RTF for State Colleges and Universities

Carolyn Long	*West Virginia University Institute of Technology*	$100,000
Orlando F McMeans	*West Viringia State University*	$100,000

STEM Fellows

Dr. Todd Green	*Marshall University*	$200,000
Katherine Karraker	*West Virginia University*	$93,750

Technical Assistance Grants

Dr. John Maher	*Marshall University*	$150,000

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Fiscal Year 2014

FINANCIAL STATEMENTS

The following analysis of the Division of Science and Research financial statements provides an overview of its financial activities for the years ended June 30, 2010 and June 30, 2009.

Summarized Financial Information (unaudited)
Assets, Liabilities, and Net Assets

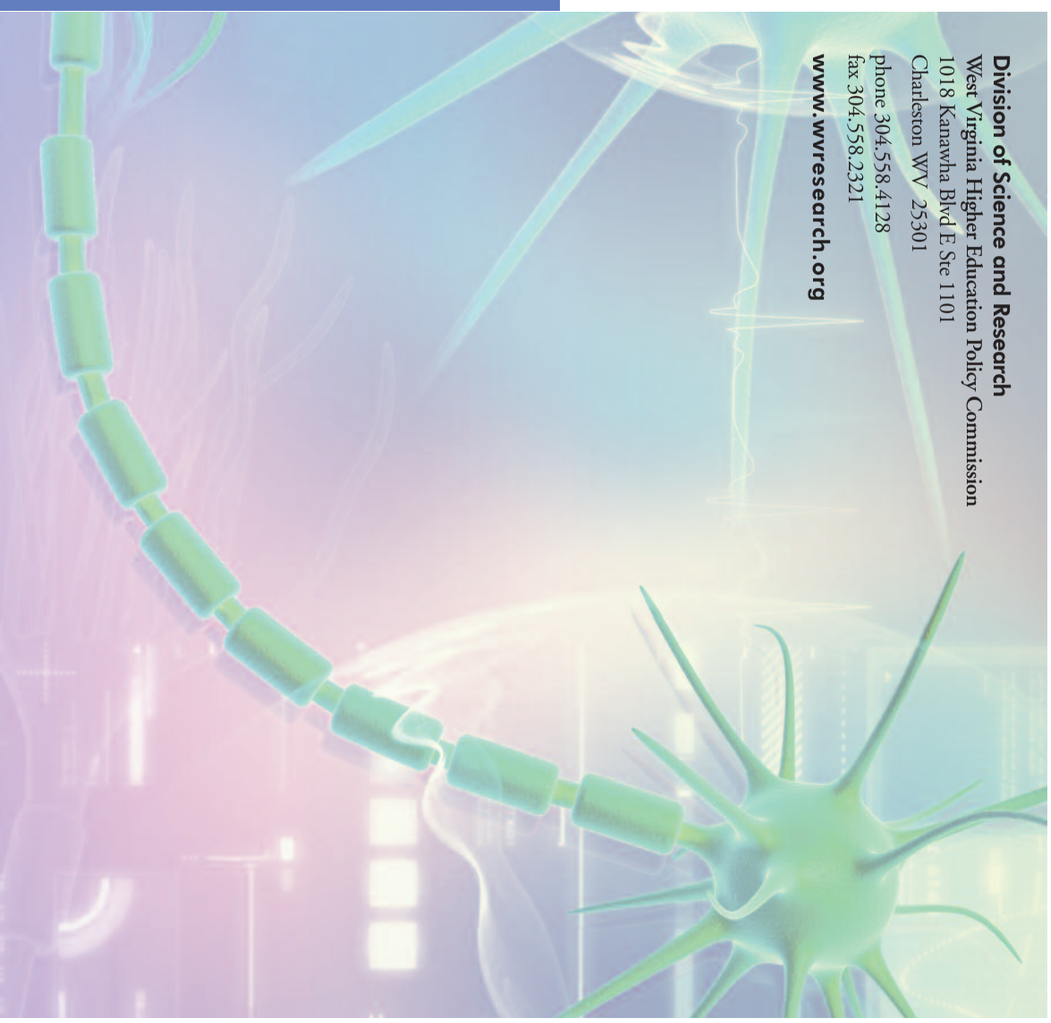
June 30,	2014	2013
CURRENT ASSETS		
Cash and cash equivalents	$ 2,541,331	$ 2,353,248
Interest receivable	19	19
Grants Receivable	4,510	7,510
TOTAL CURRENT ASSETS	2,545,860	2,360,777
NONCURRENT ASSETS		
Investment in plant, net	-	1,013
Total noncurrent assets	-	1,013
TOTAL ASSETS	$ $2,545,860	$ 2,361,790
LIABILITIES:		
Current Liabilities		
Accounts payable	$ 3,450	$ 31,160
Amounts due to Institutions	104,146	453,702
Accrued liabilities	18,669	18,463
Compensated absences, current portion	31,472	28,032
TOTAL CURRENT LIABILITIES	157,737	531,357
Noncurrent Liabilities:		
Compensated Absences	16,547	14,127
Accrued liabilities OPEB	167,577	167,201
Total Noncurrent Liabilities	184,124	181,328
TOTAL LIABILITIES	341,861	712,685
NET ASSETS:		
Invested in capital assets, net of related debt	-	1,013
Restricted for:	-	-
Expendable:	-	-
Scholarships	-	-
Sponsored projects	-	-
Capital projects	-	-
Nonexpendable	-	-
Unrestricted	2,203,999	1,648,092
TOTAL NET ASSETS	2,203,999	1,649,105
TOTAL LIABILITIES AND NET ASSETS	$ 2,545,860	$ 2,361,790

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

June 30,	2014	2013
OPERATING REVENUE		
Contracts and grants:		
Federal	$ 3,795,334	$ 3,996,730
State	-	-
Local	-	-
Private	-	115
Miscellaneous-registration fees	-	-
TOTAL OPERATING REVENUES	3,795,334	3,996,845
OPERATING EXPENSES		
Salaries and wages	324,459	322,994
Benefits	78,531	80,722
Supplies and other services	295,261	525,427
Utilities	-	-
Research sub awards	5,322,140	12,262,781
Depreciation	1,013	1,467
TOTAL OPERATING EXPENSES	6,021,404	13,193,392
OPERATING INCOME (LOSS)	$(2,226,070)	$ (9,196,547)
NON OPERATING REVENUE (EXPENSES)		
State appropriations	2,780,732	3,034,640
Investment income	2,33	4,824
Payments on Behalf of EPSCoR	-	-
NET NONOPERATING REVENUE	2,780,964	3,039,463
INCOME BEFORE OTHER REVENUE, EXPENSES, GAINS OR LOSSES	554,894	(6,157,084)
CUMULATIVE EFFECT OF ADOPTION OF ACCOUNTING CHANGE	-	-
(DECREASE) IN NET ASSETS	554,894	(6,157,084)
NET ASSETS-BEGINNING OF YEAR	1,649,105	7,806,188
NET ASSETS-END OF YEAR	$ 2,203,999	$ 1,649,105

fiscal years in review

2013-14



Division of Science and Research
West Virginia Higher Education Policy Commission
1018 Kanawha Blvd E Ste 1101
Charleston WV 25301
phone 304.558.4128
fax 304.558.2321
www.wvresearch.org