

## 2014 MEDALS & AWARDS

### BROMERY AWARD FOR MINORITIES

Presented to  
Isaac J. Crumbly



Isaac J. Crumbly  
Ft. Valley State University

#### *Citation by Lisa White*

I am delighted to honor Dr. Isaac J. Crumbly with the 2014 Bromery Award. Dr. Crumbly is Associate Vice President for Career and Collaborative Programs and Director and founder of the Cooperative Developmental Energy Program (CDEP) at Ft. Valley State University (FVSU), a HBCU (Historically Black College and University) in Georgia. A cornerstone of CDEP are the dual-degree programs in geology, geophysics, and petroleum engineering with Georgia Tech, Penn State University, the University of Texas at Austin, the University of Texas Pan American, and the University of Arkansas. Dr. Crumbly works tirelessly to recruit and mentor minority students in the program that has graduated 81 engineers, 31 geoscientists, and 8 health physicists.

Setting high standards and expectations for CDEP students, graduates of the program are very visible professionals with energy companies, government agencies, and in academia. FVSU students participating in CDEP have completed more than 850 internships in the energy industry and gained over 320,000 hours of hands-on-work experience. Since 1992, CDEP has awarded over \$8 million in scholarships to academically talented minority students to pursue degrees in biology, chemistry, engineering, geology, geophysics, health physics, and mathematics.

Aware of the importance of building a pipeline to college and to STEM majors, Dr. Crumbly has also nurtured a summer enrichment feeder program for high school students at FVSU called Mathematics Science & Engineering Academy (M-SEA). His foresight, determination, and skill in designing and nurturing a nationally-recognized program have significantly impacted the number of African Americans entering the geosciences workforce.

Dr. Crumbly's degrees in horticulture and botany would appear to be a far cry from the geosciences, however, research he conducted on greenhouse utilization of waste energy in the 1970s led to additional research and training opportunities with the Environmental Protection Agency and the U.S. Department of Energy. Responding to a call for proposals from the Department of Energy in 1983 to address the underrepresentation of women and minorities in energy fields, Dr. Crumbly first received support for CDEP 31 years ago.

Dr. Crumbly's remarkable career and his achievements have earned him recognition from the White House, the State of Georgia, numerous universities in the form of honorary degrees, and prestigious awards from professional societies. In February of 2013, he received a Resolution from the Georgia House of Representatives In Recognition of Celebrating 30 Years of Success for Developing and Sustaining the Cooperative Developmental Energy Program. It is fitting that we honor Dr. Crumbly with the Geological Society of America Bromery Award and recognize his vision, determination, and skill in designing and nurturing a program and significantly impacting the number of African Americans entering geoscience fields.

#### *Response by Isaac J. Crumbly*

I thank you Dr. White for your kind introduction and for honoring me with your nomination for the Bromery Award. Indeed, I am very proud to be a recipient of the award and am humbled by it and appreciate GSA's generosity.

This is an unexpected honor. I am probably the first non-geoscientist selected for this award. For that reason, I owe the audience an explanation. For 40+ years, I have dedicated my life to educating and mentoring students. And for the past 22 years, I have been focused on working specifically with students interested in STEM disciplines related to the energy industry. It is my involvement with these students and

the unique program created for them that has led to my being bestowed with this esteemed honor today. I am receiving this award because of the role that the Fort Valley State University (FVSU) Cooperative Developmental Energy Program (CDEP) has played in recruiting minorities into the geosciences. FVSU is a minority serving institution and is one of the nation's 105 Historically Black Colleges and Universities (HBCU); CDEP is a program that was established in 1983 with funds from the U.S. Department of Energy. The program's primary objective is to increase the number of minorities and women pursuing careers in the energy industry. As CDEP's founder and director, it was my responsibility to design a model that would best accomplish the program's objectives.

CDEP developed in two phases. Phase I consisted of establishing a Minority Student Summer Energy Internship Program (MSSEIP) for academically talented FVSU students with energy companies and governmental agencies. After operating successfully for nine years, CDEP incorporated MSSEIP into phase II. Phase II began in 1992 and consisted of establishing dual degrees in disciplines such as engineering, geology, geophysics, and health physics that are important to various sectors of the energy industry. Since FVSU does not offer degrees in the above disciplines, it was necessary to form partnerships with universities that awarded degrees in those disciplines. The dual degree programs with partnering universities work in the following manner: During the first three years, CDEP recruits students to major in biology, chemistry, or math at FVSU. Students then transfer to partnering universities for years four and five to earn degrees in engineering, geology, geophysics, and health physics. Since 1992, CDEP has formed partnerships with Georgia Institute of Technology, Pennsylvania State University, University of Arkansas, University of Oklahoma, University of Nevada at Las Vegas, University of Texas at Austin, and the University of Texas-Pan American. The financial support for the dual degree programs is provided by partnering corporations and governmental agencies. The following represents a few of the major corporations and governmental agencies that have supported CDEP's efforts for recruiting minorities for the geosciences: Aera Energy, BP Corporation, Chesapeake Energy, Chevron Corporation, ConocoPhillips, ExxonMobil, Marathon Oil, Shell Oil Company, & U.S. Geological Survey.

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As a result of the aforementioned collaborations, CDEP and its partnering universities have graduated 84 engineers, 32 geologists/geophysicists, and 8 health physicists. The 32 geologists/geophysicists represent a significant percent of African Americans who have obtained degrees in the earth sciences. Also, CDEP operates a pre-college STEM academy that serves as a pipeline for the dual degree programs.

Space and time do not permit me to acknowledge all of the individuals who have contributed to CDEP's success. However, I would be remiss if I did not acknowledge a few individuals who have played major roles in the success of the program. First, I am very appreciative to The Late Dr. Mack Gipson, an early pioneer in recruiting minorities into the geosciences, for supporting my idea to establish dual degree geoscience programs with major universities. Secondly, I give thanks to Dr. James F. Kimple, former Dean of the College of Geosciences at the

University of Oklahoma, who was brave enough to establish dual degree geoscience programs with an HBCU. Thirdly, I extend my sincere appreciation to The Late Joseph Huffstetler, recruiter for Occidental Oil Corporation, who introduced me to representatives of oil and gas companies. Others who have also been instrumental in the success of the program include: The Late Patricia Hall who supported the program and contributed to the professional development of the CDEP alumni; Mr. Reginald Spiller who has supported CDEP's dual degree initiatives from the very beginning in the form of providing support, encouragement, and mentoring to many of CDEP's graduates; Mr. Reginald Beasley for over twenty years of program support and mentoring to CDEP's interns and graduates; and Mr. Darryl Willis and Dr. Frazier Wilson who have supported the program for over a dozen years and also mentored many of CDEP's geoscience graduates. Moreover, I would be remiss if

I did not acknowledge the organizational contributions of the National Association of Black Geoscientists and the support of its members who have nurtured and mentored the CDEP students.

In closing, it is imperative that I thank CDEP's corporate and governmental sponsors for their funding support which provides scholarships and internships for CDEP scholars and the partnering universities for providing the students with second degrees in geology, geophysics, engineering, and health physics. Additionally, I thank Dr. Aditya Kar for mentoring the geoscience students at FVSU prior to their transfer to partnering universities, the CDEP Staff for their commitment to the program's mission, my beautiful wife, Dorothy, for supporting me for 40+ years, and finally Dr. Randolph and Mrs. Cecile Bromery for establishing this award, and GSA for presenting me with this honor.