

# Donald Danforth Plant Science Center

ANNUAL ACHIEVEMENT HIGHLIGHTS / 2014

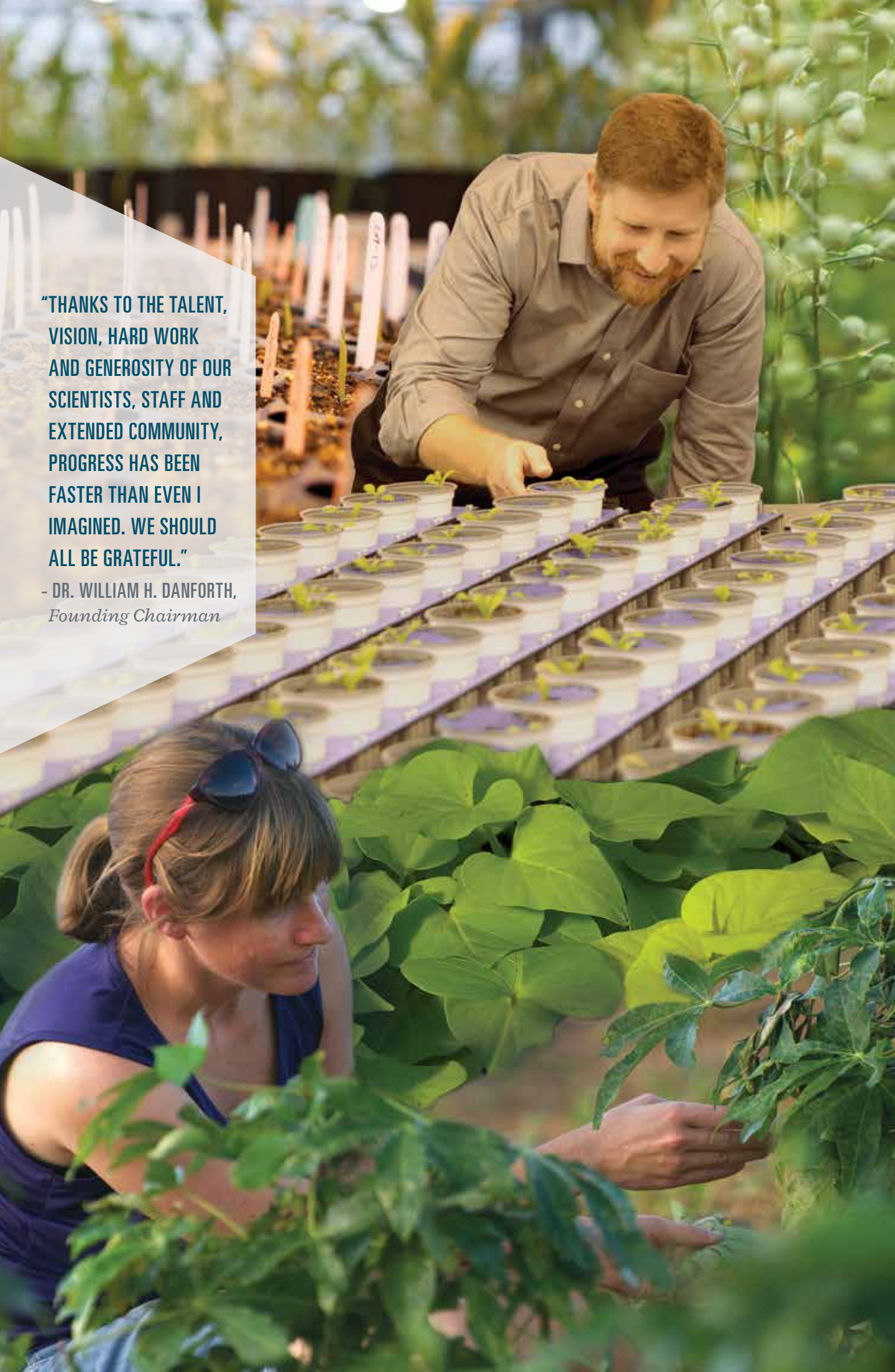


**OUR MISSION** | Improve the Human  
Condition through Plant Science

Feed the hungry and improve human health

Preserve and renew our environment

Enhance the St. Louis region as a world  
center for plant science



"THANKS TO THE TALENT,  
VISION, HARD WORK  
AND GENEROSITY OF OUR  
SCIENTISTS, STAFF AND  
EXTENDED COMMUNITY,  
PROGRESS HAS BEEN  
FASTER THAN EVEN I  
IMAGINED. WE SHOULD  
ALL BE GRATEFUL."

- DR. WILLIAM H. DANFORTH,  
*Founding Chairman*

## FEEDING THE HUNGRY AND IMPROVING HUMAN HEALTH

- Produced cassava plants with nearly three times the iron content than typical cassava.
- Demonstrated that improved plants with resistance to Cassava Brown Streak Disease are effective in normal agricultural practice in both Kenya and Uganda.
- Initiated a collaboration with funding from the International Potato Center (CIP) in Lima, Peru to develop insect resistant sweet potato.
- Advanced technology to enhance plant biomass accumulation for animal feed.

ADVANCED  
**10**  
FIELD TRIALS FOR  
CASSAVA AND  
SWEET POTATO  
IMPROVEMENT

## PRESERVING AND RENEWING OUR ENVIRONMENT

- Initiated the Missouri Transect, a \$20M NSF-funded research program involving 31 investigators from nine Missouri institutions, to explore the impact of climate change on agriculture.
- Completed the first set of field trials with *Camelina sativa*, an emerging oilseed crop, for biodiesel and cyclic hydrocarbon production.
- Developed imaging approaches (phenomics) to understand plant performance under environmental heat, drought, and cold stresses.
- Created an extensive, naturally occurring strain collection of *Setaria viridis*, a model grass for bioenergy feedstock development.

TRAINED  
**53**  
SCIENTISTS FROM  
NINE COUNTRIES

## ENHANCING THE ST. LOUIS REGION AS A WORLD CENTER FOR PLANT SCIENCE

### LOCAL SCIENCE EDUCATION AND OUTREACH

- Increased participation in our science education programs to 38 area schools, 16 of which were public schools in the city of St. Louis.
- Trained teachers from 10 area high schools to incorporate Mutant Millets, a plant-based science education program, into their curriculums.
- Hosted the first annual Raspberry Pi Jam, a science and technology fair attended by 400 people of all ages.

REACHED  
**1,968**  
STUDENTS  
THROUGH EDUCATION  
AND TRAINING  
PROGRAMS

### REGIONAL ECONOMIC GROWTH AND INVESTMENT

- Hosted 6th annual Ag Innovation Showcase, bringing together 350 investors, entrepreneurs, and company representatives and strengthening the plant science ecosystem in St. Louis.
- Surpassed \$360M in total investment raised by companies presenting at the Ag Innovation Showcase, accelerating commercialization of technologies to make agriculture more productive and sustainable.



**THE DANFORTH PLANT SCIENCE CENTER:  
IMPROVING THE HUMAN CONDITION THROUGH PLANT SCIENCE**

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We are committed to scientific discovery at the nexus of food security, energy, and the environment. Join our efforts to improve human wellbeing, renew our environment, produce jobs, and increase investment in our region.

Support the Danforth Plant Science Center today.  
[www.danforthcenter.org/support](http://www.danforthcenter.org/support)

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**DONALD DANFORTH  
PLANT SCIENCE CENTER**  
DISCOVERY | COMMUNITY | IMPACT

975 North Warson Road / St. Louis, Missouri 63132  
314.587.1073



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