Issue 04

FACILITATOR

July/August 2015

I have always wanted to somehow help somebody out in a big way, so when I had the chance to I jumped at the opportunity. It all started about 6 years ago when a local girl in my hometown was needing a bone marrow transplant to possibly help her fight Leukemia. They put on a bone marrow drive to try and find a match, they did not find a match unfortunately. While at the marrow drive, I signed up on the **Be the Match** registry, which was just a simple cotton swab of the inside of your mouth for DNA test. Over the next few years everything was quiet until one day, they called me for further testing for a patient needing a donation, unfortunately I was not a direct match, but this patient did find one however and made a full recovery. So another few years go by and another call from Be the Match comes. They needed further blood work for a patient with Multiple Myeloma. That blood work comes back and I was a perfect match for this patient, who was a 56 year old male. They told me of the process that I was going to have to do, which is called peripheral blood stem cell (PBSC.) I was somewhat relieved after hearing that this was a nonsurgical procedure, called apheresis. The process is much like the process for donating platelets. One key difference is that 5 days prior to the donation I would be taking daily injections of a medicine called filgrastim, which helps increase the number of blood forming cells (also called blood stem cells) in my body. On the day of my PBSC donation, my blood was removed through a needle in one arm and passed through a machine that collected only blood forming cells. The remaining blood was returned to me through a needle in the other arm. The filgrastim injections were the only real pain I dealt with, which consisted of a constant headache and bone pain for roughly 3 days. This was from the increased production of blood stem cells, which actually pushed through my bones and out into my bloodstream. After the procedure was over I felt really tired because they had to filter all of my blood (roughly 6L) a total of 4 times to get the maximum amount of stem cells needed for the patient. My procedure lasted roughly 7hrs, which included me not being able to get up because I had a rigid needle in the arm. My whole procedure went without a problem.

At 27 days post-op the patient who received my blood stem cells has been released from the hospital. The donated blood stem cells seem to be doing what they need to be doing!

I would highly recommend everyone get tested and become part of the **Be the Match** registry. You just never know how you might help someone out!

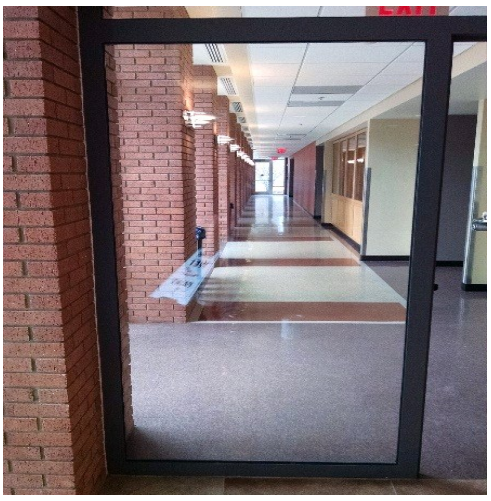
Glass Wall at Rhodes Annex Safety Hazard Reported / Resolved

Brad Hill from the Central Area Maintenance Department reported a glass wall safety hazard at Rhodes Annex to Tim Nix as part of the Facilities Safety Incentive Program. Brad Hill quoted, “the glass wall is very dangerous. Last month, I watched the Jimmy John’s delivery guy run into the glass so hard it knocked him down. I have seen several other students have near misses. It seems to happen often as there are new face smudges on it weekly.” As funny as this may seem, the glass wall was very dangerous. Brad recommended applying window tint so students and visitors will know the glass is there. Brad’s recommendation was received by Bob Wells and other Facilities Directors with gratitude and was fixed.

Thanks Brad!

Tim Nix

Glass Wall Before:



See Glass Wall “After” photo’s on page # 2

Fuels of the future taking center stage in the present

David Thornton is the organics and biofuels project coordinator for Clemson University Facilities.
Image Credit: Jim Melvin / Clemson University

By Jim Melvin jsmelvi@clemson.edu

CLEMSON – In the scientific community, opinions vary as to when human beings will finally use up Earth's underground reserves of petroleum. Thirty years? Fifty years? One hundred years?

Though the timing is debatable, the outcome is not. At 7.3 billion people and growing, the human race will eventually deplete the world's fossil fuels. Without viable alternatives firmly in place, chaos would result.

One alternative is biofuel, which is broadly defined as a fuel produced directly or indirectly from plant materials and animal waste. The result is a recycled product that is friendly to the environment.

Examples include:

- Biodiesel, which is made from vegetable oils and animal fats
- Ethanol, which is most often made from corn or sugarcane
- Green diesel, which is derived from algae and other plant sources
- Methane, which is derived from animal manure and other digested organic material

"Biodiesel production in the U.S. is increasing at a record pace, with 1.1 billion gallons being produced annually," said David Thornton, the organics and biofuels project coordinator for Clemson University Facilities. "And this is expected to continue to increase as researchers develop more productive and sustainable oil sources. Diesel fuel is mainly used in agriculture, military and transport of goods. Currently, biodiesel has the potential to displace about 15 percent of diesel fuel used in the U.S." Thornton, who is also the composting facilities manager with the recycling program at Clemson, recently conducted a workshop titled "Make Your Own Biodiesel" at Cherry Crossing Research Facility near the main Clemson campus.

During his daylong workshop, Thornton demonstrated the process of making biodiesel, which involves a combination of heat, agitation and time. He also focused on essential safety and quality-control monitoring procedures designed to produce clean domestic fuel using cooking oil collected from Clemson's campus cafeterias.

The cooking oil is first settled in tanks, which allows unwanted debris – called "gravy" – to sink to the bottom. The cleaner oil nearer the surface is then pumped into a reactor, where it is mixed with methanol and a catalyst. This process removes a thick alcohol from the vegetable oil molecules and replaces it with a lighter methyl alcohol to decrease the viscosity of the fuel, thus making it a drop-in replacement for ordinary diesel fuel. Further purification and filtering eventually result in a fuel that is fluid, moisture-free and ready for use in cars, tractors and any machines powered by diesel engines.

Biodiesel has many mechanical advantages in diesel engines, boosting cetane values, increasing lubricity and cleaning out fuel cylinders and injectors.

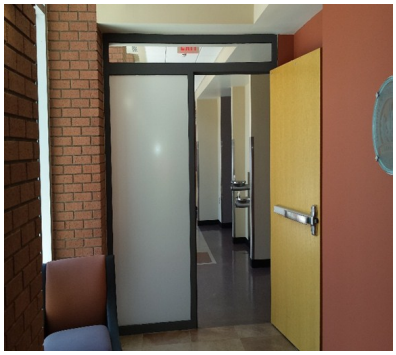
"Second-generation biodiesel feedstock such as algal and insect oils are on the horizon," Thornton said. "These feed stocks can revolutionize fuel production by using non-arable land and industrial wastes to produce renewable energy and sustainable animal proteins, while at the same time not competing with food markets like their predecessors such as soybeans and corn."

Most of the organic waste produced at the university is processed at the Cherry Crossing facility, where it is made into mulch, compost, animal feed and biofuel that is used on campus and also available for purchase.

"We recycle food waste, landscape residuals, agricultural residuals and even some construction debris," Thornton said. "And eventually we're going to be tackling biosolids, which are the byproducts from anaerobic digesters at wastewater treatment plants. We also have a small gasification lab that's being built, so by this time next year we hope to be converting waste plant and animal materials into natural gas."

Continued from page # 1

Glass Wall After:



From: Debra Helvie
Sent: Thursday, June 18, 2015 9:46AM
To: Dian Egger-Hallquist
Subject: Thanks!!

Hi Diane,

I just wanted to thank you and the HVAC crew for getting the air conditioning noise level way down in classroom 116 Kinard. It's so much better!!! And I've also noticed that our own office suite (Kinard 118) is much quieter and we can actually hear each other without having to raise our voices. Could you please also pass on our thanks to the person(s) who did the repairs?

Thanks again very much!!

Deb

Debra Helvie
Administrative Assistant
Dept. of Physics & Astronomy
Clemson University

From: Gerald Lecroy
Sent: Monday, July 20, 2015 3:48 PM
To: Boyce Woolbright
Subject: FW: Brad Justice

Boyce,
I will have to agree Bradley is doing a great job for Facilities.
--
William
ph: 864-656-7688

From: Elena Mikhailova
Sent: Monday, July 20, 2015 3:21 PM
To: Gerald Lecroy
Subject: Brad Justice

Dear Lecroy,
I am writing to you to comment on the wonderful job Brad Justice has done painting hallways and offices in Lehotsky Hall. He has an excellent attention to detail and work ethic.

Sincerely,
Dr. Elena Mikhailova
Associate Professor of Soil Science
Department of Forestry and Environmental Conservation
Clemson University

Kudos

From: Mickie Damesworth
Sent: Monday, July 20, 2015 1:27 PM
To: Thomas Horace Fallaw
Subject: 110 Daniel Drive

Good Afternoon,

Hope you are well. I just wanted to thank you and your staff for how great they have made our entrance look (attached are some pictures we took). We get the most compliments and it is truly much more inviting for our guests. The staff is always so helpful and pleasant to work with and we truly appreciate all their efforts. The spring flowers were just as beautiful.

Again, thank you for all you have done for us!!

Mickie Damesworth
ADMINISTRATIVE COORDINATOR
DEVELOPMENT AND ALUMNI AFFAIRS
110 DANIEL DRIVE
CLEMSON, SC 29631

If you have information, an article, upcoming event or compliment you would like included in future Facilitator issues, please send the information to:
Colleen Caracciolo
colleec@clemson.edu
656-4604

Bob,

I wanted to let you know how much we appreciate the efforts your people went to in getting us a new compressor delivered and installed in a short period of time. They went above and beyond, and the faculty, staff and students in Lowry greatly appreciate the effort. Please pass on our thanks to all involved.

Danny

Daniel R. Metz
Clemson University
Glenn Department of Civil Engineering
137 Lowry Hall

New Hires

Edward Cavanaugh	Custodial
Matthew Jones	Capital Projects
Jerrad Ward	Support Services
Tyler Whitmire	Maintenance

Retirees

Kathy Boice	Capital Projects
Roxie Hicks	Custodial
Furman Stewart	Landscape
Edith Whitner	Custodial

E– Cigarettes/Vaping

The use of these devices has increased dramatically in the past few years, as some choose to use e-cigarettes/ vaping instead of traditional tobacco products.

If you use E-Cigarettes/Vaping, please be advised:

The University considers their use the same as traditional tobacco products—they are not permitted to be used inside University buildings or vehicles.

Birthdays

July

7/1	Gregory Weitz
7/2	Dennis Roach
7/3	David Garrett
7/4	Thomas Gibson
7/4	Tony Putnam
7/8	William Patterson
7/10	Rusty McDonald
7/11	Todd Barnette
7/11	Steven Dubose
7/14	Kathy Boice
7/15	Clara Ditty
7/16	Jay Kaufman
7/17	Rose Crosby
7/21	Tammi Burdette
7/21	James Garrison
7/21	David Vandeventer
7/22	Michael Parker
7/23	Matthew Holbrooks
7/23	Tom Jones
7/25	Kevin Pruitt
7/26	Tom Suttles
7/27	Sandra McCurry
7/27	James McGee
7/28	Jay Whitmire
7/29	Katherine Daily
7/29	Robert Dover
7/31	William Pinson

August

8/1	Kasey Cooley
8/1	Scot Wardlaw
8/2	Scott Burgess
8/8	Robert McCrary
8/8	Zack Roach
8/11	Dennis Driscoll
8/11	Rod Holcombe
8/12	Randy Medlin
8/14	Bill Hurst
8/15	Annette Thomas
8/15	Spencer Waldrop
8/17	Tyler Jones
8/18	Scott Pugh
8/19	Larry Miller
8/21	Diane Egger-Hallquist
8/22	Bill Harmon
8/22	Howard Holland
8/22	Kevin McDonough
8/24	Teresa Cordell
8/27	John McEntire
8/29	Stanley Crowe
8/29	Bradley Goff
8/31	Tommi Jones
8/31	Keith Mize

September

9/6	Scott Feagan
9/7	Keith Gates
9/7	Mark Smith
9/7	Daniel Springs
9/10	Butch Fortner
9/11	Donald Brewer
9/11	Dan Byers
9/11	Pawel Zdeb
9/14	Sid Blackwell
9/14	Dustin Thomson
9/14	Mack Whitmire
9/16	Lonnie Swafford
9/19	Jerrad Ward
9/20	Glenda Cotton
9/21	Felisha Twillie
9/22	Chris Kohler
9/22	Mike Todd
9/23	Scott Richey
9/26	Shelley Hackett
9/26	Don Keasler
9/26	Rick Tomlinson
9/26	Roger Wiggins
9/27	Oscar Salazar
9/29	John Gambrell
9/30	Charles Brown

Spring Picnic - a great time for relaxation, food and socializing