May’s Presenter: Dr. Scott D. Hamilton–Brehm

*Carbon Down Under: A Path to Carbon Negative*

Dr. Scott D. Hamilton–Brehm, is an associate professor of Microbiology at Southern Illinois University, where he teaches elementary microbiology and geomicrobiology. He grew up in Mojave, California, the high desert where the sound barrier was broken in 1947. He received his bachelor’s of biochemistry in 1997 from San Luis Obispo Polytechnic where he revived bacteria from the abdomens of pre-historic bees entombed in amber for a million years. He worked for a short time in biotech but determined that he would need an advanced degree to participate in world changing research. He received his biochemistry and molecular biology Ph.D. in 2008 from the University of Georgia. His graduate studies involved studying the hyperthermophilic archaeon Pyrococcus furiosus, a microbe that comes from the bottom of the Mediterranean and lives in boiling water. Afterwards he completed two post-doctorate appointments at Oak Ridge National Laboratory in Tennessee and the Desert Research Institute in Nevada. There he learned about carbon cycles, biofuels, and deep subsurface microorganisms. He joined SIU in 2016, where his research laboratory focuses on environmental microbiology. During the COVID19 pandemic, his lab (with the support of other SIU labs) represented one of five universities producing viral transport media allowing the Illinois Department of Health to continue testing during the first chaotic months of the outbreak. His lab continues research with strange microorganisms and looks to find solutions to the world’s most challenging problems. Recently his student teams and collaborators have won national and global challenges such as the XPRIZE Carbon Removal, NASA Deep Space Food, and the DOE AlgaePrize.

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Humanity is constantly reminded of the microscopic giants that shape the planet and our lives. As Stephen Jay Gould observed “What you see is that the most outstanding feature of life’s history is a constant domination by bacteria.” While microorganisms get labeled as being ‘bad’, by far they are our allies, and we need to learn as much as possible to enlist their help. Microorganisms can conduct the most fantastic bio-chemical processes, but the most important is their ability to funnel and transform carbon. All of humanity is being tested by climate change, energy deficiencies, and food insecurity. Our future rests with the next generation of students and their cleverness to recruit the most powerful lifeform on this planet, the microbe.
SILIR Monthly Interest Groups

Monthly Book Club

The Book Club meets on the 3rd Monday of the month at 9:30am at Epiphany Lutheran Church on West Chautauqua.

May 20, 2024
May's book selection is

“The Last Night in Twisted River”
By John Irving

Monthly Lunch Discussion Group

Members are invited to join this group to meet monthly to share lunch and open conversation.

May 15, 2024
11:45 am

May's Location: Giant City Lodge

Community Events

May 5, 2024 Community Fun & Fitness Relays
To bring families and individuals of all ages, races, backgrounds, and skill levels in the Southern Illinois region together in the great outdoors to enjoy a sport that is readily accessible to all! This event will take place at the Carbondale Community High School in the Frank Bleyer Field on May 5, 2024. Join us! Raise money for local and international non-profit organizations that serve youth and aim to grow them to become future leaders with global consciences and hearts for service. Contact gocffr@gmail.com for more information or visit our website at www.cffrsoill.org.

Address:
1301 E Walnut St
Carbondale, IL US 62901

May Luncheon

MENU: Coffee service from 9:30 to 10:30 am to include regular and decaf coffee and tea.

LUNCH: $23.38 PP (includes tax & gratuity)
- Fried Chicken (combo white & dark)
- Vegetarian Option: Vegetable Stir-Fry
- Mashed Potatoes and gravy
- Dumplings
- Green Beans
- Buttered Corn
- Coleslaw
- Biscuits with butter
- Coffee, Iced Tea, Soda, Water

VEGETARIAN OPTION: Vegetable Stir-Fry. MUST BE REQUESTED WHEN RESERVATIONS ARE

May 16th Adventure

Pots, Paths, and Picnics in Alto Pass
Thursday, May 16, 11 a.m. - 1:30 p.m.
Meet at 10:15 to carpool from Epiphany Lutheran Church, return @ 2 - 2:30

Join us for a visit to Alto Pass, with a pottery demonstration at Alto Clay Works, a short hike on the Quetil Nature Trail (old Cairo to St. Louis Narrow-Gauge Railroad bed), a picnic lunch (bring your own) at the Cliffside Park overlook, and a private tour of Havisham Bourbon Bar and event room, with possible tour of vacation rental property.

Note: You can make the day what you will, as a trip up to Bald Knob Cross could be achieved earlier in the day, and a visit to Peachbarn Winery, Alto Vineyards, or Von Jakob Winery & Brewery could be tacked on at the end, but this is not part of the group adventure.
Please submit a check payable to “SIU Carbondale” or credit card information below.

Credit Card Number __________________________ Exp. __________
Name on Card __________________________ CVC __________
Email (for receipt): __________________________
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