



The WV STEM Club is a social organization which meets monthly for lunch with a speaker on a topic of interest. Short field trips are occasionally scheduled. Membership is open to anyone who has worked in or has an interest in Engineering, Science or Technology. Meetings are held at 11:30am on the first Friday of each month (unless otherwise noted), October through June, at Grandview Terrace, in the fourth-floor ballroom, at 14515 W. Granite Valley Drive, Sun City West, AZ. **Guests and visitors are always welcome.** Contact Phil Main: maintwin3@gmail.com, 623-826-0101 (cell).

JUNE 7 PROGRAM

Exploring Resilient Solutions to the Problem of Extreme Heat in Phoenix

David Sailor

Professor and Director of the School of Geographical Sciences and Urban Planning , ASU



David Sailor is a Professor and Director of the School of Geographical Sciences and Urban Planning at Arizona State University. His research focus is at the intersection of climate and the built environment. Specifically, he has worked extensively on understanding the mechanisms that contribute to the urban heat island effect—most notably, his work on anthropogenic heat emissions in cities.

He also investigates and evaluates technologies and strategies for mitigating extreme heat and its consequences His research in these areas was recently recognized by the American Meteorological Society who awarded him the 2023 Helmut E. Landsberg Award in Urban Climate.

Abstract:

As part of a recently-funded US Department of Energy Project, Dr. Sailor is leading an effort to explore and address the spatial and temporal variation of extreme heat in the Phoenix metropolitan area. This includes identifying the hot spots, and the spatial variation of landuse / landcover, and other factors that contribute to local urban heat islands. This project, known as the Southwest urban corridor integrated field laboratory (SW-IFL) is also seeking to understand that wide array of possible resilient solutions to heat by systematically modeling and measuring the performance of various solutions as applied in Phoenix. This presentation will summarize the SW-IFL project, discuss early findings, and highlight some of the current and upcoming measurement campaigns exploring resilient solutions.

September 16, 2024 . The Club will need new officer nominees by the October 4th meeting and the election of the 2025 officers is scheduled for November 1, 2024. The Club has a GREAT TEAM on the Board of Directors and everyone complements each other very well. If you have an interest or need additional information, please contact Jim Schlenvogt, js3820@msn.com, 480-869-0548 or one of the other Club Board of Directors’ members.

On April 15, 2024, about 40 WV STEM members attended a picnic lunch and a tour of the SCW Railroad Club’s display area. Steve Sumner did a great job with the weather! The attendees sang “Happy Birthday” to the Club for its 50th Anniversary.

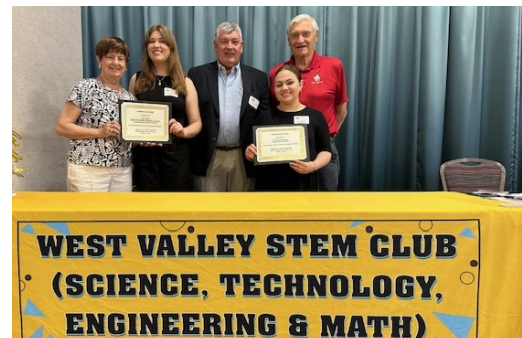
We have the June 7, 2024 meeting and then we are on vacation for July, August and September, but we have some interesting programs for the Fall, 2024. Future program topics, include:

- Using Blood Tests to Measure the Strength of Our Antibody Responses to Those Foreigners in Our Blood.
- The Sustainability of Arizona's Groundwater
- Artificial Intelligence

The 2024 Scholarship Committee did a great job interviewing two scholarship candidates, raising significant donations, and awarding two scholarships of \$3,000 to both students, who are enrolled at Arizona State University or Northern Arizona University in the Fall as incoming STEM Juniors.

Finally, I want to acknowledge all of our volunteers and the invaluable contributions everyone makes at meetings, at events, recruiting new members and guests, participating on committees, preparing reports, etc. Their commitment and teamwork are truly inspiring! Volunteers are the backbone of our Club, and if you want to volunteer, please feel free to contact me or one of our Board of Directors.

We look forward to seeing you and your guests at our next meeting. Have a safe and healthy summer. Thank you for your participation!



2024 Scholarship Recipients left to right: Carol Mungus, Fiona Rasco (NAU), Jim Schlenvogt, Jeyra Nevarez Araiza (ASU), George Zieglgansberger

PRESIDENT’S MESSAGE

Jim Schlenvogt

As I announced, after three years as President of the West Valley STEM Club, it is time to recruit new officers and new Board of Directors’ members. The Board of Directors meet September to May, on the third Monday of the month, 9:30 am at the Grandview Terrace, in the first-floor meeting room. If you are an active Club member and wish to see the Club continue to grow and have interesting programs, please consider coming to our **Board Meeting on**

WEST VALLEY STEM June 2024

2024 OFFICERS

President	Jim Schlenvogt
Vice President	George Zieglgansberger
Secretary	Darrell Armbruster
Treasurer	Carol Mungas
Asst. Treas.	Dave Campbell

COMMITTEE CHAIRPERSONS

Programs	Peter Rauen/Rick Cecil
Membership	Philip Main
Reservations	Philip Main
Luncheons	Jim Schlenvogt
Scholarship	Jim Schlenvogt
Member at Large	Don Zoss/ Betty Goldberg
Newsletter	Dave and Karen Campbell
Website	Gary Graunke
Event Audio	Doug Totel
Event Computer	Paul Scherer
Publicity	Lance Berglund
Field Trips	George Zieglgansberger
Past President	Steve Sumner

Email the Board at: js3820@msn.com

physics, from the University of California, San Francisco, LaBaer completed a medical residency at the Brigham and Women's Hospital and clinical fellowship in oncology at the Dana-Farber Cancer Institute, both in Boston.

Abstract: We can learn a lot about our health by looking at the antibodies we carry. Once antibodies are produced against a particular threat, memory antibodies remain in our systems to prepare us should the threat arise again. We can determine which foreigners our immune systems have faced by measuring the strength of our antibody responses to those foreigners in our blood.

ASU has developed an innovative high-throughput blood test, which marries powerful DNA sequencing technology and innovative protein chemistry, that allows us to measure our antibodies to hundreds of different possible foreign proteins in thousands of people at a time. This new tool will allow us to assess which infections we have had, even if we were not aware of the infection when it occurred. We may also be able to use it to detect some occult internal diseases like cancer. Following these measurements over time will reveal changes that signal new medical events that may benefit from intervention.

TREASURER'S REPORT APRIL 2024

Gross General Fund Balance	\$12,277.61
Net Fund Balance (after payment of obligations)	\$4,758.29
Membership	109

The May 50/50 winner was Robert Parizek. Robert donated his \$40 winnings to the Scholarship Fund. Thank You for Your Support!

2024 MEETING DATES

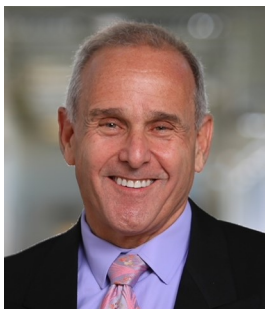
June 7th, October 4th, November 1st,
and December 6th.

October 4 PROGRAM

Using Blood Tests to Measure the Strength of
Our Antibody Responses to Foreigners

Dr. Joshua LaBaer

Executive director of the ASU Biodesign Institute



Joshua LaBaer is one of the nation's foremost investigators in the field of personalized diagnostics. He discovers and validates biomarkers that can provide early warning for those at risk of major illnesses, including cancer and diabetes. Recruited to Arizona State University as the first Piper Chair in Personalized Medicine in 2009, LaBaer has led the Biodesign Institute at ASU as executive director of since 2016. He simultaneously directs the Biodesign Virginia G. Piper Center for Personalized Diagnostics. Previously, LaBaer was founder and director of the Harvard Institute of Proteomics. After earning a medical degree and doctorate in biochemistry and bio-

MAY 3 PROGRAM

"Translational Research - Getting the best
pancreatic cancer research to patients as
rapidly as possible."

Derek Crیدهbring, Ph.D.

Director of the Molecular Medicine Division, TGen

