# **Next Meeting**



Join us for our next meeting on February 25 in the **Georgian Room**. Our guest speaker will be Maria Talbert, Executive Director of Indiana University Auditorium. The 3,200-seat venue hosts university ceremonies, conferences, concerts, and Broadway productions. With more than 25 years of experience in marketing, event, and facility management, Maria holds a master's degree in arts administration from IU and is an active member of the International Association of Venue Managers. Passionate about student engagement, she oversees opportunities for more than 600 IU students annually.

#### THIS WEEK'S NEWS

### **Weekly Meeting Volunteers**

We have quite a few empty slots out there to help facilitate our weekly meetings, and we need your help. If you're like to volunteer, please see the link in the left column of this newsletter.

# Hoosier Hills Food Bank volunteer opportunity Feb. 28

Volunteer are still needed for the Hoosier Hills Food Bank, Friday, February 28. There will be two shifts: 10 a.m.-noon and noon-2 p.m., with space for up to 15 at each shift. Sign up here >

#### **Annual District Grant**

**Sara Laughlin** introduced the Annual District Grant match project: \$3k from the district, matched by \$3k from the Bloomington Rotary Club. If you're interested in suggesting a project, note that proposals require a Bloomington Rotary sponsor.

- Here's a link to the instructions >
- Here's a link to the application form >

Projects must engage at least 25 Rotarians in a day of service. Funding will be available in the first week of August. Applications are due by March 28, and the project timeline runs from August through the end of March.

#### **New Member Orientation**

Lori Garraghty and Jim Bright plan to co-host a new member orientation get-together for Tuesday, May 13, at the home of Jim and Anne Bright. It will be open to 15 members who have joined within the past two years. If you're available to participate, please contact Jim Bright, jbright48167@yahoo.com.

### Join us for the Rotary District Conference

Mark your calendars for the <u>ALL IN Rotary District Conference</u>, happening April 25-26 at the Sheraton Indianapolis at Keystone Crossing! This exciting event brings together members from three Rotary Districts — 6540, 6560, and our very own 6580—for a weekend of friendship, learning, and inspiration. It's the perfect opportunity to connect with fellow people of action, share ideas, and strengthen your Rotary journey.

Special Opportunity for New Members: The Bloomington Rotary Club is offering scholarships to cover conference registration for three new members (those who have joined within the last two years). If you're interested in attending, please <u>reach out to President Traci Jovanovic</u>. Don't miss this chance to engage with the broader Rotary community — we'd love to see you there!

### **FEBRUARY 18 PROGRAM**

https://youtu.be/IjTjiGJOi9c



### **Guest Speaker: Anna Reine**

## "Asking Big Questions with Tiny Particles: Wonder, Truth, and Neutrinos"

Introduced by **Connie Shakalis**, Anna Reine, a postdoctoral fellow at Indiana University's Center for Exploration of Energy and Matter, leads a life of great contrasts, including working deep in a mine for her research! Anna shared insights into her experience as an experimental physicist studying neutrinos — tiny, elusive particles that are abundant in the universe but rarely interact with matter.

Anna emphasized that while mathematics can be intimidating, science and physics are for everyone. She highlighted the shared sense of wonder that science brings, akin to the impact of art and poetry. Science is not just about answers but also about the techniques we use to find them. One of the biggest questions we can ask: Why are we here?

The universe's history dates back 13.8 billion years to the Big Bang. Within the first second, protons, neutrons, and electrons formed, eventually leading to the creation of atoms, stars, and galaxies. However, a fundamental mystery remains: the imbalance between matter and antimatter. Initially, matter and antimatter were in balance, but somehow, an asymmetry occurred, allowing matter to dominate.

Anna's research focuses on a hypothesized variation of beta decay, which could help explain this asymmetry. This version of beta decay, involving the element germanium (Ge), might hold the key. The

process isn't explained in the standard model of particle physics, but its discovery could lead to groundbreaking new theories.

Neutrinos, which originate from the sun, are incredibly abundant. Every second, 100 billion pass through your thumbnail. Despite this, they barely interact with matter. They are at least 100,000 times lighter than electrons, making them the lightest known particle with mass. Scientists are investigating whether neutrinos are their own antiparticles, which could explain the universe's matter imbalance.

Given its extraordinary half-life (greater than 10^26 years), detecting even a few decays could require a ton of germanium. Over a decade, only 2 to 4 decays might be observed. One major challenge is background noise, other processes that could interfere with the data. To mitigate this, researchers use shielding techniques, including massive copper and lead barriers and even underground facilities, such as a former gold mine in South Dakota, to create a controlled environment. An upcoming experiment LEGEND-1000 – planned to be in a mountain range in Italy (where the mountain can provide similar levels of shielding) – also aims to detect this rare decay.

Anna spoke about the broader impact of fundamental research, likening it to NASA's work, where technological advances often emerge over time. She also highlighted concerns over funding cuts, particularly to diversity programs, which affect the entire scientific community.

Audience Questions, selected:

- What are the practical applications of this research? Answer: Long-term indirect applications, similar to technological advancements from NASA research.
- How does science influence science fiction, and vice versa? Answer: Science often informs cultural narratives rather than direct technological predictions.

Anna closed by reminding us of the awe and curiosity that drive scientific discovery, referencing Carl Sagan's reflections on space and exploration. Science allows us to ask profound questions and seek answers that expand our understanding of the universe.

In honor of today's presentation, a donation will be made to Teachers Warehouse.

### **UDPATES**

Incoming President **Steve Wickes** introduced a thought for the week from club member **Phil Amerson**: "Navigating change is hard and uncomfortable. It's important that we maintain tough minds, soft hearts, and strong hands in order to drive the best possible outcomes."

Tim Thrasher opened with a reflection, disclaiming that tiramisu is just too good to ignore! Continuing short presentations from past presidents, he highlighted the year of Bryan Price, who served as president from 2002 to 2003. A great friend and an exceptional leader, Bryan unfortunately had to cut short his tenure. His presidency was marked by record-setting contributions to the Rotary Foundation, the recognition of Rev. Ernest Butler with the Service Above Self Award, and the club's sponsorship of an ambassadorial scholar. That year saw the club hosting a visiting group from Nigeria, expanding its impact on the global stage. Additionally, through the Paul Harris Sustaining Fellows and EREY efforts, the club welcomed 18 new contributors. In recognition of his outstanding leadership, Bryan was honored as President of the Year for District 6580, a well-deserved acknowledgment of his dedication and service.

#### **HAPPY DOLLARS**

Happy Dollars were shared. **Alain Barker** was thankful to not slip on the ice outdoors. **Jeff Richardson** was happy to share time with Rotary friends in the midst of significant national and international change. He mentioned that community and joy are important to us all. **Caleb Poor** celebrated the installation of his art project at the Indianapolis Airport. **Raj Haddawi** was happy to be joining us from Chicago.

### Sam Ujdak introduced our guests:

- Nicole Helms, Club guest
- Minka Wiltz, guest of Connie Shakalis
- Diego Barbosa Vasquez, guest of Alain Barker
- Yehya Kader, Rotaract
- Tylar Nichols, Rotaract

# Joy Harter introduced our guests on Zoom:

- Megan Gearhart joined us from Czech Republic with her flat mates!
- Vladan Jovanovic (Traci's husband)

### **Birthdays:**

- Kyla Dox Deckard February 18
- Jim Kryway February 18

### **Member Anniversaries:**

- Geoff Bradley - 11 years

# Acknowledgments

Executive Assistant: Natalie BlaisMeeting Greeter: Sue Sgambelluri

Introductions: Sam UjdakReflection: Tim ThrasherZoom Host: Joy Harter

Camera/Mic Operator: Michael ShermisZoom and Audio Producer: Isaac Smith

Reporter: Alain BarkerPhotographer: Jim Bright