



ROTARY CLUB OF APPLETON

GUSTO

Service Above Self

May 27 , 2014

Upcoming Programs

June 3

Salon B

Heeter Award
Presentations
Thumbnail: Jake
Woodford
Thought of the Day: Ron
Altenburg

June 10

Salon A

Bright Future Award
Recipients
Thumbnail: ?
Thought of the Day:
Dennis Episcopo

Officers 2013-2014

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Secretary

Sridhar

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Mary Schmidt
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Marta Weldon

Sergeant-At-Arms

Paul Hillmer

Rotarians of the Year

Ruth Ann Heeter / Jay
Drzewiecki

Admin. Assistant

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Membership – 182

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Meets Tuesday Noon

CAPTURING COSMIC NEUTRINOS: WHAT THE GHOST PARTICLE TELLS US ABOUT HIGH ENERGY UNIVERSE

Jim Madsen, IceCube Associate Director for Education and Outreach Chair at U. W. River Falls Physics Department talked about how Physics World's 2013 Breakthrough of the Year award went to the IceCube Neutrino Observatory at the South Pole for making the first observations of high-energy cosmic neutrinos. Neutrinos are produced in the most energetic and extreme phenomena in the universe. They are neutral and point back to their source. Neutrinos can turn into protons and vice versa by emitting an electron. Neutrinos are called a "Ghost Particle" because they are an invisible particle that carries away energy and they are hard to capture. When a neutrino interacts with something, the particle charges and emits light. Then you can tell the direction of the particle, how much energy it has and the time it happens. The idea to explore the universe by detecting neutrinos goes back more than five decades. Reines and Cowan detected neutrinos in a nuclear reactor in 1956. Even early promoters knew that mapping the cosmos with high-energy neutrinos would require a detector of unprecedented size—a cubic kilometer of pristine transparent material. The initial idea was to deploy a grid of light sensors in water, and smaller neutrino telescopes are currently operating in the Mediterranean Sea, and in Lake Baikal in Russia. But so far, only the aptly named international IceCube Collaboration has constructed a cubic-kilometer-scale detector, and in the last year they isolated convincing evidence for high-energy neutrinos produced in outer space. The IceCube Neutrino Observatory, the result of decades of design and seven seasons of construction in the South Pole ice sheet, is an incredible example of creativity, perseverance, and a bit of luck. The IceCube Project is conducted in the South Pole because they have the infrastructure and the ice is incredibly clear. The IceCube Collaboration, which consists of 43 institutions around the world and over 300 scientists, delivered a detector on time, on budget, and exceeding design performance specifications. Dedicated teams worked hard to deploy over 5,000 light sensors to depths between 1,450 and 2,450 meters below the surface. With some equally amazing ingenuity, scientists were able to find about one dozen cosmic high-energy neutrinos per year out of the roughly one hundred billion events recorded annually. A few things to remember is that the universe is immense and mostly unexplained and science and technology enable both to advance. The next steps are to continue to optimize analysis and detector performance and high and low energy extensions are under consideration.

ANNOUNCEMENTS

- We will be partnering with other area Rotary Clubs to have a booth at the June 4 Chamber Business Expo (Radisson Paper Valley from 10 am-4:30 pm). Our goals: educate the community about what Rotary is and recruit new members. We're using VolunteerSpot to help us organize the staffing of our booth (2-hour time slots). Please click this link (<http://vols.pt/Qba95F>) to learn more and to sign up to help. Remember to proudly wear your Rotary name badge when you staff the booth! Thanks for helping to Engage Rotary and Change Lives.
- The Courtesy Awards Committee is asking you to keep your eyes open for uncommon courtesy and not wait until the holidays to submit your nomination. Courtesy Award nomination forms can be found on our website or by a member of the committee. Award recipients receive \$50-\$75.
- Megan Warner has been hired as our club's new administrative assistant. Kathy will be working to train Megan who will be starting on June 10.
- President Peter received a letter from Doug and Carla Salmon thanking our club for the Charles and Adele Heeter Outstanding Community Leadership Award and Paul Harris Fellowship and for recognizing their work in the community.

GUESTS, VISITORS AND MAKE-UPS

Guests today were Jim Madsen, Sarah and Steve Johnshoy with Nancy Johnshoy and Faith Sealy with Phil Sealy.

There were no **visiting** Rotarians today.

Making up with week was Tim Reich on e-Club.

WELLNESS IN A HEARBEAT: WIKIPEDIA IS NOT A DOCTOR -- AND A STUDY CONFIRMS IT

Your high school teacher said it best: Wikipedia is not a reliable source.

The online encyclopedia that can be edited by experts and idiots alike is an easy source of information when trying to learn about a new topic. But a new study confirms what we all (hopefully) already know: Many entries -- especially medical entries -- contain false information, so don't use Wikipedia in place of a doctor.

Dr. Robert Hasty of Campbell University in North Carolina, along with a team of researchers, published the study in this month's issue of the Journal of the American Osteopathic Association. The study calls the information published in 20,000-plus medical-related Wikipedia entries into question.

For the study, researchers identified the "10 costliest conditions in terms of public and private expenditure" -- which included diabetes, back pain, lung cancer and major depressive disorder -- and compared the content of Wikipedia articles about those conditions to peer-reviewed medical literature. Two randomly assigned investigators found that 90 percent of the articles contained false information, which could affect the diagnosis and treatment of diseases.

Now for those of you who are saying that it's not the doctors themselves checking Wikipedia, you'd be wrong. According to a pair of studies from 2009 and 2010, "70% of junior physicians use Wikipedia in a given week, while nearly 50% to 70% of practicing physicians use it as an information source in providing medical care."

Pew research suggests that 72 percent of Internet users have looked up health information online in the last year. False information on Wikipedia accounts -- like a edited information about the side effects of a medication or false information about the benefits of one course of treatment over another -- could encourage some patients to push their doctors toward prescribing a certain drug or treatment.

Moral of the story: Wikipedia can't tell you if those sniffles are a symptom of the common cold or the West Nile Virus, so consult your doctor if you have health concerns. If you're a doctor, we don't know what to tell you, except maybe get off Wikipedia. (Isn't that what med school was for?)