

# VALLEY ENGINEERING, SCIENCE & TECHNOLOGY CLUB

[www.engineersaz.com](http://www.engineersaz.com)

MARCH 2016 NEWSLETTER

Editor: Noelle Jobson

The Engineers Club is a social organization which meets regularly for lunch with a speaker on a technical topic. Spouses are invited and many attend regularly. Short field trips are occasionally scheduled. Membership is open to anyone who has worked in or related to the engineering or scientific fields. Meetings are held at 11:30am on the first Friday of each month (unless otherwise noted), October through June, at Briarwood Country Club, 135th and Meeker in Sun City West, AZ

Visitors are always welcome -- just call Reservations at (623)546-9112 to let us know you are coming.

## March 11 PROGRAM

### Your Morning Walks Could be in the Comfort of Air Conditioning

Pankaj Sinha, Ph.D. CEO MiClimate



Dr. Pankaj Sinha, Founder and CEO of MiClimate, is an entrepreneur, a technologist, an artist and a philanthropist. His unique experiences while living in geographies with extreme temperatures has helped him with envisioning and applying leading edge technologies to develop viable solutions to improve the way we live every day.

Pankaj received a PhD in Chemical Engineering from the Arizona State University. He is an active CQA auditor and a Six Sigma Black Belt. Combined with his 22 years of experience at Intel Corporation, he strives to combine art and technology in order to realize his vision to provide relief from uncomfortable temperatures for every person on this planet.

MiClimate is a Phoenix, AZ based company. In this presentation we will discuss the market, technology, current status, and challenges. Become part of this revolutionary product that can reduce the impact of climate change on the daily lives of billions of people on this planet, including you.

*See February 2016 Newsletter for more product information.*

## NOTES FROM...

### President Jackie Rice



As your new president, these notes will be different than the past – because I know nothing about engineering and a little about science. My interests are cosmology and evolution.

### Natural Antibodies as Treatment for Multiple Sclerosis

A natural antibody called rHlgM22 is being tested for safety while it is also being tested for a possible treatment for MS. Although immunologists discovered so-called natural antibodies more than 100 years ago, for decades they were unexplainable. It was unclear what they did, where they came from, and where they fit into the greater perspective.

Over the past 10 to 15 years, however, researchers have nailed down important roles for these molecules. They are not pathogenic; they are physiological or therapeutic. Their functions include protecting us against pathogens, as normal antibodies do, but also other jobs that could turn them into useful tools for medicine. Natural antibodies help dispose of the billions of cells that die or commit suicide in our bodies every day, and they rein in inflammation-promoting immune cells such as macrophages. When they falter, disease can develop. A failure to clear cellular detritus may promote development of autoimmune illnesses.

*Continued on Page 2*

## April 1 PROGRAM

### Internet of Things: Innovations & Megatrends



Mark Goldstein, President  
International Research Center

Mr. Goldstein will explore the next Internet wave, the Internet of Things (IoT), expected to connect tens of billions of new sensors and devices in the coming years. Waves of change will roll through home, business, government, industrial, medical, transportation, and other complex ecosystems. Join us as we examine how IoT will be implemented and monetized creating new business models from pervasive sensor deployments and data gathering, accompanied by new privacy and security risks. Come and explore IoT's roadblocks and operational challenges, emerging standards and protocols, gateway and wireless integration, and big data strategies and opportunities.

*See Mark's bio on Page 2!*

## FUTURE MEETINGS

May 6, 2016

Title: **Collaborative consumption. How technology is enabling the new Marketplace Economy.**

Speaker: Joe Dunnigan, CEO Swappow

**INTEL ISEF LOOKING FOR SCIENCE FAIR JUDGES!!**  
**See page 2 for more information**

**Luncheon Meeting Dates 2016: March 11, April 1, May 6, June 3, October 7, November 4, and December 2**

## 2016 OFFICERS

President	Dr. Jackie Rice	623-572-8089
Vice President	Tod Hamilton	623-910-2042
Secretary	Doris Palmer	623-815-8143
Treasurer	Marilyn Pettigrew	623-337-4163

## COMMITTEE CHAIRPERSONS

Programs	Rick Cecil	360-402-1695
Membership	Philip Main	623-748-8222
<b>Reservations</b>	<b>Dave Whitehouse</b>	<b>623-544-0942</b>
Luncheons	Tod Hamilton	623-910-2042
Scholarship	Len Cohen	623-546-3741
Member at Large	Les Sherry	623-975-9081
Newsletter	Noelle Jobson	623-810-8717
Event Support	Hal Lind	623-546-6385
Event Audio	Richard Stout	623-815-0985
Event Computer	Richard Sarut	480-300-7251
Web Site	Dave Campbell	623-734-3737
Publicity	Lance Berglund	623-546-3364
Field Trips	Lanny Barness	623-518-4871
Hospitality	Doris Palmer	623-815-8143

## TREASURER'S REPORT MARCH 2016

**General Fund Balance: \$5761.60**  
**Scholarship Fund Balance: \$5280.42**

**Lottery Proceeds to Scholarship Fund: \$80**  
**Lottery Winner \$79**

## LUNCHEON MENUS

**March 11: #1 Salisbury Steak, or #2 Orange Roughy.** Both served with Salad, Lyonnaise Potatoes, Green Bean Almondine, & Apple Turnover w/ Ice Cream  
**(Grilled Vegetable Plate or Fruit Plate also available).**

**April 1: #1 Yankee Pot Roast w/Gravy or #2 Pan Fried Trout Almondine.** Both Entrées come with Salad, Creamy mashed potatoes, Chef's Vegetable, & Ice cream & cookie.

## RESERVATION POLICY

**The cost of the monthly luncheon is \$18.00 cash or check.** The reservation deadline is 6PM Monday before the meeting. **Late reservations cannot be guaranteed the regular meal.** Call Dave Whitehouse to cancel your reservation. Note that the full cost of the luncheon will be charged for "no-shows" and cancellations after 5PM on Wednesday before the meeting. Please have cash or make out your check in advance.  
**RESERVATIONS Dave Whitehouse (623) 544-0942**

## WELCOME NEW MEMBERS!

- ◆ Jerry Miller
  - ◆ Jim Baker
  - ◆ Maryanne Balzer
  - ◆ Paul Cahill
  - ◆ Gary Hall
- Current club membership is 118**

## President's Note Continued

And people who've had strokes or heart attacks or who suffer from Alzheimer's disease show reduced blood levels of certain natural antibodies. rHlgM22, the antibody scientists discovered and hope to use for restoring myelin may work in the waste disposal business. Scientists saw hints of its activity 30 years ago in mice infected with a virus that destroys their myelin, creating an animal model of MS. The researchers injected the mice with spinal cord material, expecting that it would increase myelin loss. But the opposite happened – the mice re-grew myelin, suggesting that the spinal cord material triggered the release of factors that stimulated the insulation's repair. The factors were identified as poly-reactive natural antibodies.

To find human versions of the antibodies, the researchers turn to an unusual source: blood samples from people who have multiple myeloma – a cancer of the antibody producing B cells – or other illnesses that induce a surge in natural antibodies. By sifting antibodies from those blood samples and testing their ability to trigger re-myelination in mice, the researchers identified 2 human natural antibodies with therapeutic promise. They were able to engineer cells to manufacture one of them, rHlgM22.

## Mark Goldstein, Biographical Information

Mark is President of International Research Center (<http://www.researchedge.com/>), providing consulting, custom research, and strategic support for business, legal and public policy clients across a variety of disciplines and arenas since 1992. IRC concentrates on clients' needs in the complex worlds of telecommunications, information technology, eCommerce, eContent, eLearning, the Internet, biotechnology and other domains by harnessing global information resources for informed decision making. Mark is a technophile and technology visionary, activist, advisor, and entrepreneur with extensive experience and connections throughout myriad technology sectors. He is involved with a number of policy, economic development, professional, and trade groups, and a frequent speaker and trainer. Mark previously worked for 18 years in electronic and computer engineering including 12 years managing engineering teams and projects for Medtronic, a Fortune 500 biomedical device manufacturer. He worked in the mid-seventies for MicroAge in R&D at the beginning of the personal computer revolution.

## Intel ISEF in Phoenix May 2016

More than 1,700 students representing 75 countries and territories will be in Phoenix to compete for more than \$5 million in awards, scholarships and prizes.

**They are looking for Grand Award Judges to evaluate student science fair projects in 22 scientific disciplines.** It is a two day commitment. Day one to review the projects and day two from 8 am to 8 pm to judge the projects in each discipline. If interested, please contact Edgar Van Cott at [evc2vce@hotmail.com](mailto:evc2vce@hotmail.com).