



Sigma Xi, The Scientific Research Society Chapter Annual Report for Fiscal Year 2009 July 1, 2008 – June 30, 2009

Chapter Name: Research Triangle Park
Region: SE **Constituency:** Area/Indus/State&Fed Labs (MI)
Chapter ID Number: 302
Date Report Closed: 7/2/2009

Statistics on 4/1/2009

Number of active members: 151
Number of inactive members: 201
Number of initiates elected from July 1, 2008 June 30, 2009: 0

Statistics on 4/30/2008

Number of active members: 163
Number of inactive members: 184
Number of initiates elected from July 1, 2007 June 30, 2008: 4

Good Standing status

Officers on file: Yes
Delegate to one of the last three annual meetings: Yes
Last year's chapter annual report on file: Yes
One initiate over last two years: Yes

Local Support Payments from Sigma Xi this year:

No Payment on File for June
1/30/2009 = \$585.67
9/30/2008 = \$1,573.86

Chapter Web site: <http://www.rtp-sigmaxi.org/>

Chapter Listserv: ch302@listserver.sigmaxi.org

Chapter Officer Requested New or Updated listserv:

Chapter Officer Revitalization Contact with Staff:

Grants and Funding Received from Sigma Xi:

Program	Amount Awarded	Date Awarded
Multi-chapter	\$2,000.00	4/1/2008

Sigma Xi Awards Received:

no records found

Chapter Address:

PO Box 13068
Research Triangle Park NC 27709

Chapter Officers reported for FY2010 July 1, 2009 June 30, 2010**President:** Term: FY2010**President**

Name: Mr. Robert Wright
Home Number: 919-309-9622
Business Number: 919-541-4502
Fax Number: 919-541-4537
E-mail Address: wright.bob@epa.gov

Secretary: Term: FY2010

Secretary Name: Mr. Dennis Tabor
Home Number: 919-319-7653
Business Number: 919-541-2686
Fax Number: 919-541-3745
E-mail Address: dennistabor1@sigmaxi.net

Treasurer: Term: FY2010**Treasurer**

Name: Dr. Jack Bishop
Home Number: 919-847-2190
Business Number: 919-541-1876
Fax Number: 919-316-4511
E-mail Address: bishop@niehs.nih.gov

Annual Meeting Delegate For Fiscal Year 2010**Delegate**

Name: Dr. Rajagopal Vijayaraghavan
Home Number: 865-406-9281
Business Number: 919-380-3994
Fax Number: 865-974-5483
E-mail Address: raaj_v07@yahoo.com

Chapter Operations:

Identified new chapter leaders: No
Increased the number of members involved in/or attending chapter activities? Yes
Sent a student to the Sigma Xi Student Research Conference? No
Developed or maintained a chapter web site? Yes
Sent a newsletter or regular communication to members? No
Sent Electronic newsletter? Yes
Communicated with inactive members? Yes
Nominated new faculty or institutional leaders for Sigma Xi membership? Yes

Paid initiate fees for new members? No
Promoted Associate Members? Yes
Created new chapter program? No
Worked on revitalizing the chapter? No
Worked with another Sigma Xi Chapter? Yes

Past Fiscal Year Chapter Activities:

ActivityName: Science Cafe August 2008 -- Hurricanes

Participation: 107

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: *Monster Storms – Hurricanes in North Carolina

Tuesday, August 19, 2008 6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

Tir Na Nog 218 South Blount Street, Raleigh, 833-7795 *

We are looking forward to an interesting discussion about tropical storms - we will learn the basics of why hurricanes are unique types of storms and how North Carolina is affected by them (hopefully we won't have to deal with any of these giant storms in our state this year!)

Just to help you get started thinking about hurricanes, the following website can give you some background information

<http://geography.about.com/cs/hurricanes/a/hurricane.htm>.

Also, this is an interesting article from the New York Times about hurricanes and global warming ...

http://www.nytimes.com/2007/05/29/science/earth/29hurr.html?_r=1&oref=slogin

<http://www.nytimes.com/2007/05/29/science/earth/29hurr.html?_r=1&oref=slogin>

***About the Speakers**

Dr. Ryan Boyles is the State Climatologist and Director of the State Climate Office at NC State University. The State Climate Office is a public service center with a mission to provide weather and climate research, extension and education services for North Carolina. Boyles is a native of Durham with undergraduate and graduate degrees from NC State University.

Dr. Anantha Aiyyer is an Assistant Professor in the Department of Marine, Earth, Atmospheric Sciences at North Carolina State University. Dr Aiyyer's research focus is in tropical meteorology, atmospheric dynamics and climate variability.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe September 2008 -- Eat A Bug

Participation: 46

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: Six-legged Solutions: Become Earth Friendly and Eat a Bug

Tuesday, September 16, 2008

6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

The Irregardless Café 901 West Morgan Street Raleigh, 833-8898

Entomophagy, or the practice of eating of insects for food, is a topic that is objectionable to many. It could be however that eating our six legged friends may be a viable way to feed millions of people and at the same time lower humanity's impact on the environment. Join us to learn about arthropods as food – and if you want, even sample a few on your own!

About the Speaker

Dave Gracer is a teacher, writer, family man, and president of Sunrise Land Shrimp, the edible insect company, which offers educational services and can fill small orders of insects you might be craving. Originally from New York, Gracer now lives in Providence RI. He is busily expanding his media empire and hopes someday to become the Al Gore of entomophagy.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe October 2008 -- Dogs

Participation: 130

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: The Behavior and Misbehavior of Dogs

Tuesday, October 14, 2008

6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

Tir Na Nog 218 South Blount Street, Raleigh, 833-7795

Humans have lived with dogs for thousands of years and have selectively bred them to work, live, and play with us. When polled, most dog owners consider their pets members of their family; however, in surveys, 45-90% of dog owners report behavior problems with their dogs. Why? Is this a “failure to communicate?” We will discuss dog behavior, and some of the reasons why we become frustrated with our canine companions (and why they become frustrated with us!).

About the Speaker

Barbara Sherman is clinical associate professor at the NCSU College of Veterinary Medicine, and president of the American College of Veterinary Behaviorists. She teaches animal behavior to veterinary students and serves as director of the Animal Behavior Service of the Veterinary Teaching Hospital (www.animalbehaviorservice.com), where she sees dogs and their people for behavior problems, such as separation anxiety, thunderstorm phobia, and compulsive behaviors. Dr. Sherman earned her DVM at The Ohio State University and PhD at the University of North Carolina at Chapel Hill.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe November 2008 -- Water

Participation: 69

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: What Have You Been Drinking?

Tuesday November 18, 2008

6:30-8:30 pm with discussion beginning at 7:00 followed by Q&A

Location: The Irregardless Café, 901 W. Morgan Street, Raleigh
833-8898

As development constantly increases in North Carolina, pollutants such as silt, street runoff and processed waste water are all entering our water supply at higher rates each year. Learn how this is affecting our local aquatic ecosystems and ultimately the water that each of us drinks every day. Do you know what's in your water?

About the Speakers:

Dr. Arthur Bogan is research curator of aquatic invertebrates at the NC Museum of Natural Sciences, Raleigh. His work is primarily on the biology, distribution and evolution of freshwater mussels. He is co-author on "The Freshwater Mussels of Tennessee," (University of Tennessee Press) and "Freshwater Mussels of Alabama and the Mobile Basin in Georgia, Mississippi and Tennessee" (University of Alabama Press). He is co-chair on the Distribution Committee of the Freshwater Mollusk Conservation Society.

Dr. Greg Cope is a professor of environmental toxicology at NC State University. His research focuses on the transport, fate and effects of water pollution on aquatic organisms, with an emphasis on threatened and endangered species of native freshwater mussels and fish. He and his students have authored over 70 peer-reviewed journal articles, book chapters and outreach publications. He is active in

the American Fisheries Society and is President-Elect of the
Freshwater Mollusk Conservation Society

ScienceEducPubUnderS: Yes
actstatus: Complete



ActivityName: Women in Science Booth
Participation: 250
Participants: Mostly non-members
Cost: 100
ChapterFunds: Yes
YearDone: Please Choose
Description: The RTP Chapter Contributed Funds for this meeting and had a staffed booth at the event.

Women in Science Networking Event: Fri Jan 16 7-9

- >
- > Hi all women in science and engineering!
- >
- > Women's Networking Event at ScienceOnline'09
- > Friday, January 16, 2009, 7-9 pm
- > Sigma Xi Center, RTP
- > Women, Science, and Storytelling: The Immortal Life of
- > Henrietta Lacks
- > (a.k.a. HeLa), and one woman's journey from scientist
- > to writer
- >
- > You are cordially invited to a Triangle-wide networking
- > event for women
- > in science research, writing, education, and policy.
- > We're expecting
- > women from biotech companies, government agencies,
- > universities, as well
- > as many local women's groups and academic
- > organizations. Come and meet
- > women with common interests, find future collaborators, and
- > identify
- > possible mentors! The night will culminate in a talk by
- > Rebecca Skloot,
- > a freelance science writer whose work has appeared in
- > Popular Science,
- > NPR, and The New York Times. She'll be speaking about
- > the history and
- > ethics behind the HeLa cell line.
- >

LecturesWorkshopProf: Yes
ProgOnSciEdu: Yes
actstatus: Complete



ActivityName: Sigma Xi Leadership WebSite

Participants: Some Sigma Xi members

YearDone: Please Choose

Description: RTP Chapter's Bob Panoff worked with Sigma Xi headquarters so that Shodor "built" the new Sigma Xi Leadership site (<http://www.sigmaxileadership.org>) and we partnered with Sigma Xi HQ on getting funds from NSF to run workshops for chapters, and to annotate the American Scientist with content from NSDL.

PromotingResearch: Yes

SupplInterRes: Yes

actstatus: Complete



ActivityName: Science Cafe January 2009 -- Supernovae

Participation: 153

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: Supernovae: The Violent Deaths of Stars

Tuesday January 20, 2009

6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

Tir Na Nog 218 South Blount Street, Raleigh, 833-7795

Massive stars end their lives in spectacular supernova explosions, visible across the Universe, that blast material into space that contributes to future generations of stars, produces cosmic rays, and stirs up interstellar gases. Many heavy elements, including the calcium in our bones and trace amounts of copper and zinc in our bodies, are formed only in supernovae; we are quite literally made of star stuff. Some supernovae can even be used to gauge distances to remote galaxies; from these we have learned the astonishing fact that the expansion of our Universe is actually picking up speed. Join us as we discuss ongoing work on supernovae, their remnants and related astronomical work.

About the Speaker:

Dr. Stephen Reynolds, professor of physics at NC State University, has been studying supernova remnants for almost 30 years. Reynolds' research focuses on the generation of cosmic rays by supernova remnants, involving theoretical work and observations with national radio-astronomical facilities and orbiting X-ray observing satellites. Reynolds and his colleagues recently made international headlines when they discovered the youngest-known remnant of a supernova in the Milky Way.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe February 2009 -- Sleep

Participation: 155

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: Sleep and Sleep Disorders

Tuesday, February 17, 2009

6:30-8:30 pm with discussion beginning at 7:00 followed by Q&A

Location: The Irregardless Café, 901 W. Morgan Street, Raleigh 833-8898

The significance of sleep and dreams has been a subject of interest for centuries. But it took discoveries by scientists (electrical activity of the brain, Rapid Eye Movement sleep) to spur the creation of a new clinical field -- Sleep Medicine. The ensuing creation of the polysomnogram (sleep study) has been instrumental in helping sleep physicians evaluate different sleep disorders such as sleep apnea, restless legs, sleepwalking and narcolepsy. Now the general population and the medical community are beginning to recognize the impact of sleep disorders on society.

About the Speaker:

Yvette R. Cook is a Diplomate of the American Board of Sleep Medicine and Fellow of the American Academy of Sleep Medicine. She has a private practice in Cary (Cary Neurology & Sleep Disorders, Inc.) specializing in the field of sleep medicine and serves as Medical Director of Rex Sleep Disorders Center, an accredited Sleep Center devoted to the evaluation of patients with sleep disorders.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe July 2008 -- Paper

Participation: 53

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: From Papyrus to Nano-fibrils: The History and Science of Paper

Dr. Med Byrd, researcher in the Department of Wood and Paper Science in the NCSU College of Natural Resources

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe March 2009 -- Gene interactions

Participation: 123

Participants: Some Sigma Xi members

YearDone: Please Choose

Description: Darwin lives on: how gene-environment interactions affect modern society

Tuesday March 24, 2009

6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

Tir Na Nog 218 South Blount Street, Raleigh, 833-7795

In the 150 years since Charles Darwin published *On the Origin of Species*, there has been great debate (political, spiritual, and scientific) over the implications of natural selection for human beings: What does our shared evolutionary history have to do with common, complex diseases? How might genetics shape differential susceptibility to the multitude of chemicals—both manufactured and natural—present in the environment? How do modern lifestyles impact the evolutionary process? Join us as we discuss these and other questions concerning the interplay between our genes and the environment.

About the Speaker:

Dr. David Reif earned his B.S. (Biology) from the College of William & Mary and both his M.S. (Statistics) and Ph.D. (Human Genetics) from Vanderbilt University. He is currently a Statistician in the National Center for Computational Toxicology at the U.S. Environmental Protection Agency. Reif's research focuses on novel statistical and bioinformatical strategies for human health and environmental toxicology.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe April 2009 -- Eat Locally

Participation: 138

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: Think Globally - Eat Locally

How much do you know about the food you eat? Were pesticides applied? Do you know where it was grown and how far it traveled to get to you? How much did its transportation contribute to global warming? What can we do to bring about the revival of locally produced foods and all the benefits they bring – better taste, nutrition, stronger local economies and relationships with local farmers, reduced fossil fuel dependency, and improved land and animal stewardship?

At this Science Cafe we will discuss how to grow our own, how to eat seasonally, and where to buy so that you can leverage your dollars for change. We will also learn about organizations and restaurants supporting this work, farmers looking for membership clients, and Statewide Action Plans that are in the works.

About the Speaker:

Dr. Jeana Myers is a soil scientist at the NCDA&CS soil testing lab in Raleigh, with a lifelong passion for local food systems. Her undergraduate degree in International Agriculture Development in 1979 led to a Peace Corps mission in Zaire, Africa as an extension agent trainer. After returning to the US she received a masters degree in Crop Science and a PhD in Soil Science at NC State then settled in Raleigh with her husband, Will Hooker, who teaches permaculture in the horticulture department. They traveled with their 1½ year old son for 10 months around the world in 2000, visiting over 100 permaculture and organic farm sites in 11 countries. Over the years they have cultivated a mini city farm on 1/5 of an acre in the middle of Raleigh, with gardens, fruit trees, chickens and ponds. She consulted others who wanted to grow more food with her Beautiful Food Gardens business. Promoting the delights and necessity of a strong local food system is her on-going life's work.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe May 2009 -- Personal Genome

Participation: 68

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: Letting it All Hang Out: The Personal Genome Project
May 19, 2009

6:30-8:30 p.m. with discussion beginning at 7:00 followed by Q&A

Tir Na Nog 218 South Blount Street, Raleigh, 833-7795

Two years ago no one knew what personal genomics was; now it's everywhere. For a few hundred dollars, you can have a peak at part of your own genome. You can theoretically learn your genetic risks for various diseases. And some companies say you can find romance based on your DNA. But what is all this stuff really? What does it actually mean? What will genomic privacy look like in the digital age? The Harvard-based Personal Genome Project is exploring large-scale DNA sequencing and seeing what happens when genomic data are made public; its organizers hope to help answer some of these questions.

Misha Angrist, PhD, is Assistant Professor of the Practice at the Duke University Institute for Genome Sciences & Policy. He is also a Visiting Lecturer at the DeWitt Wallace Center for Media and Democracy inside Duke's Terry Sanford Institute of Public Policy. He was formerly a board-eligible genetic counselor. He has covered the biotechnology industry as an analyst for a market research firm and worked as an independent biotechnology consultant, writer and editor. In April 2007 he became the fourth subject in Harvard geneticist George Church's Personal Genome Project. His

book, Here is a Human Being: At the Dawn of Personal Genomics, will be published by Smithsonian Books in 2010.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Science Cafe June 2009 -- Chocolate

Participation: 100

Participants: Some Sigma Xi members

YearDone: 2-3 years

Description: The Science of Chocolate

Tuesday, June 16, 2009 - 6:30-8:30 p.m. with discussion beginning at 7:00, followed by Q&A.

Location: The Irregardless Café, 901 W. Morgan Street, Raleigh 833-8898

From drinks to desserts, chocolate is a favorite that is loved by cultures worldwide. Can a food as delicious as chocolate also be good for your health? Join us to learn about the history of chocolate from ancient times to modern day manufacturing, and find out what current research is telling us about the science of this special food.

Dr. Gabriel Keith Harris is an Assistant Professor of Food Science at North Carolina State University. His research interests involve the functional properties of plant foods. His specific interests include the antioxidant and anti-inflammatory effects of flavonoids and related compounds.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete



ActivityName: Periodic Tables February 2009 -- Panoff

Participation: 25

Participants: Some Sigma Xi members

YearDone: Please Choose

Description: Bob Panoff from the RTP Chapter was the Speaker at another Chapters Science Cafe.

Transforming Learning Through Computational Thinking

Speaker: Bob Panoff, Shodor Foundation

Shodor is a Durham-based organization devoted to creating real world hands-on learning projects for students both in Durham and around the world. Bob will share his personal story as to why he left tenured academics and created Shodor and show you how he is helping to transform science and mathematics via the internet and network technologies such as the National Science Digital Library.

ScienceEducPubUnderS: Yes

ScienceGenPublic: Yes

actstatus: Complete

