Sigma Xi, The Scientific Research Society
Chapter Annual Report for Fiscal Year 2005
July 1, 2004 – June 30, 2005

Chapter Name: Research Triangle Park
Region: SE **Constituency:** Area/Indus/State&Fed Labs (MI)
Chapter ID Number: 302
Complete Date: 08/31/2005

Statistics on: 05/30/2003
Number of active members: 164
Number of inactive members: 136
Number of Initiates elected from July 1, 2002-June 30, 2003: 3

Statistics on 04/13/2004
Number of active members: 158
Number of inactive members: 147
Number of initiates elected from July 1, 2003 June 30, 2004: 2

Statistics on 04/05/2005
Number of active members: 158
Number of inactive members: 155
Number of initiates elected from July 1, 2004 June 30, 2005: 2

Good standing status for the year ending June 30, 2006
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:
01/31/2005 = $472.47
09/30/2004 = $1,648.80

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:
no records found

Sigma Xi Awards Received:
no records found

Tax ID Number: 56-1851261

Chapter Address:
PO Box 13068
Research Triangle Park NC 27709

Chapter Officers reported for FY2006 July 1, 2005 June 30, 2006

President: Term: FY2006

Name: Dr. Kurt Preston
Home Number:
Business Number: 919-549-4234
Fax Number:
E-mail Address: kurt.preston@us.army.mil

Vice President: Term: FY2006

Name: Mr. Michael Maxwell
Home Number: 919-490-4633
Business Number:
Fax Number:
E-mail Address: mmaxwell@nc.rr.com

Secretary: Term: FY2006

Name: Mr. Robert Wright
Home Number: 919-932-3517
Business Number: 919-541-4502
Fax Number: 919-541-0496
E-mail Address: wright.bob@epa.gov

Treasurer: Term: FY2006

Name: Dr. Robert Weimer
Home Number: 919-969-9241
Business Number:
Fax Number:
E-mail Address: rfweimer@mindspring.com

No Annual Meeting Delegate For Fiscal Year 2006 was identified.

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?
Sent a newsletter or regular communication to members? No
Sent Electronic newsletter? Yes
Communicated with inactive members? No
Nominated new faculty or institutional leaders for Sigma Xi membership? Yes
Paid initiate fees for new members? No
Promoted Associate Members? No
Created new chapter program? Yes
Worked on vitalizing the chapter? Yes
Worked with another Sigma Xi Chapter? Yes

Chapter Activities:

ActivityName: Four quarterly meetings (2 at night meetings, 2 luncheon meetings)
Participation: 10-25
Participants: Mostly Sigma Xi members
Cost: 60/meeting
ChapterFunds: Yes
YearDone: 6-10 years
Description: Oct 20: Micro Adaptive Flow Control

Abstract: Dr. Thomas L. Doligalski is Chief of the Fluid Dynamics Branch at the U.S. Army Research Office. Micro Adaptive Flow Control (MAFC) technologies enable control of large-scale aerodynamic flows using small-scale actuators. MAFC technologies combine adaptive control strategies with advanced actuator concepts like micro-scale synthetic jets, microelectromechanical systems (MEMS)-based microactuators, pulsed-blowing, plasma actuators, and combustion actuators. Army systems for which MAFC is currently being investigated include on-blade controls, dynamic stall control on helicopter rotor blades, separation control for drag and buffet reduction on helicopters, surge and stall control within Army gas turbines, and dispersion reduction and terminal guidance of subsonic, transonic and supersonic vehicles

Dec 15: Lunchtime Tour of US EPA High-Bay Research Facilities

Abstract: US EPA's Air Pollution Prevention and Control Division (APPCD) (see http://www.epa.gov/appcdwww/index.html) has organized a lunchtime tour of its high-bay research facilities on Wednesday, December 15 for members of the Sigma Xi Scientific Research Society in the Research Triangle Park area. The RTP chapter of Sigma Xi is happy to host this tour and welcomes the participation of other local chapters. The tour is intended to showcase some of the larger-scale research that APPCD is conducting in its high-bay facility and to promote the free exchange of ideas in the fashion that is typical of Sigma Xi meetings.

Feb 16: Tile: Building A Better Radio: Research Goals and Programs

Abstract: Dr. Dev Palmer is a Program Manager in the Engineering Sciences Directorate of the US Army Research Office managing programs that relate to radio hardware, performance modeling and simulation, and the mobile wireless communications physical layer. Dev will discuss some of the grand challenges and long-term scientific goals in computational electromagnetics, antennas, and RF circuit integration, and describe how current work in these areas advances the state of the art. The US Army Research Office funds extramural basic research and works to provide US forces technological superiority

May 12: Regional Rail Connecting the Research Dots – RTP, Duke, NCSU, NCCU, and UNC

Lunchtime presentation by John W. Roberson, PE, Director of Engineering, Triangle Transit Authorit
HostLectBySXMem: Yes
HostedSiteVisits: Yes
actstatus: Complete

ActivityName: Annual Chapter Banquet
Participation: 49
Participants: Please Choose
Cost: ~1100
ChapterFunds: Yes
RegFees: Yes
YearDone: 6-10 years
Description: June 29: Science Funding in North Carolina

Dr. Robert McMahan, Senior Advisor to the Governor for Science & Technology and Executive Director of the North Carolina Science and Technology Board. In addition, Dr. McMahan is a professor of Physics and Astronomy at the University of North Carolina at Chapel Hill where he examines the large-scale structure of the universe
HostLectBySXMem: Yes
InteractionLegislato: Yes
actstatus: Complete

ActivityName: Participation at Laws of Science Symposium
Participation: 02
Participants: All Sigma Xi members
YearDone: 1st year
Description: Apr 18: Laws of Science Symposium

Abstract: The RTP chapter staffed an information table promoting Sigma Xi membership. Every two years, the Biological and Chemical Patents Committee of the Intellectual Property (IP) Section of the NC Bar Association sponsors a half-day symposium to provide basic training to researchers and technology managers about issues and factors related to protecting IP. The symposium helps scientists and managers at all levels understand how to best work with and protect intellectual

property -- helping to maximize the returns to the techcnology that is developed at Universities, Companies and Other Institutions....and helping not to lose all rights to those returns.
ResLocalCommunity: Yes
ScienceGenPublic: Yes
actstatus: Complete

ActivityName: East Coast Nationals of the Sally Ride TOYchallenge
Participation: 01
Participants: All Sigma Xi members
YearDone: 1st year
Description: May 7: East Coast Nationals of the Sally Ride TOYchallenge

Abstract: The RTP chapter provided a judge at this event at the SIgma Xi Center
ScienceGenPublic: Yes
actstatus: Complete

ActivityName: Review of Sigma Xi Proposals
Participation: 01
Participants: All Sigma Xi members
YearDone: Please Choose
Description: An inactive Sigma Xi member who works with the incoming chapter president reviewed various proposals that were submitted to Sigma Xi in April 2005.
actstatus: Complete
