



Nu Rho Psi News

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G. Andrew Mickley, Ph.D.,
Executive Director

Nu Rho Psi Travel Awards

Each year Nu Rho Psi sponsors travel awards for undergraduates to attend the annual meeting of the Faculty for Undergraduate Neuroscience (FUN) and Society for Neuroscience (SfN) in the fall of the year.

Congratulations to last

year's two winners Tim Lazicki from Dominican University and Anna Blumenthal from Drew University. Each was awarded \$750 to defray expenses to present their research at the meetings.

Interested students who are members of Nu

Rho Psi can apply for an award this year by filling out the travel award application from FUN and checking the box that indicates he/she is a Nu Rho Psi member.

Independent Governance Ahead By Andrew Mickley

Since its inception in 2006, Nu Rho Psi has been governed by the Faculty for Undergraduate Neuroscience (FUN) Council. However, the plan has always been that the Society would eventually move to our own, independent, governance structure.

That move was authorized by the FUN council last November and will officially take place on 1 January 2012. As the first step in the preparation for this change, Dr. Mickley (Nu Rho Psi Executive Director) applied to incorporate Nu

Rho Psi in the state of Ohio. The application was approved by the state on 7 Feb 2011. Preparation of an application for Federal Tax Exempt status for Nu Rho Psi is in process.

This spring the Nu Rho Psi membership must elect officers and other members of a National Council. The Council officers are President, President-Elect, Past-President, Secretary, and Treasurer.

In addition, Nu Rho Psi members in particular geographic regions will elect 4 Regional

Vice Presidents to lead the activities of chapters in the Northeast, Midwest, South, and West regions.

The terms of the new officers will commence 14 November 2011 during the Nu Rho Psi National Meeting (coinciding with the FUN and Society for Neuroscience meetings).

Members of Nu Rho Psi (now over 600 strong) should be encouraged by the growth of our Society as we move to this next level of our development.

University of Pennsylvania Update

We are thrilled that Penn's chapter of Nu Rho Psi has been officially approved. Penn's chapter has two main goals. The first is the expansion of knowledge in the field of neuroscience. The second is grounded in community service and educating local schools in the study of neuroscience (including participation in Kids Judge!, Neuroscience Pipeline, and serving as mentors for fellow undergraduates at Penn seeking research opportunities).

Our induction ceremony is scheduled to take place in March and our first class is around 25 students. Following the induction ceremony, we will have a brief meeting highlighting the events planned for the

rest of the semester. These include:

- A neuroscience research information session for undergraduates in which we will explain how to find a lab that addresses that student's particular interests, how to contact the Principle Investigator, the responsibilities involved, etc.

- NRP members will present at the students' weekly honors seminar. We will present our own research with the aim of our discussion being to teach the students how to later present their own work at the symposium

- Philadelphia Science Festival (outreach work). We will present on neuroscience topics at two libraries. This will be open to the public and targets students in elementary and middle school.

-Joe Yellin, Chapter President

Nu Rho Genesis:
A hearty welcome
to our newest Nu
Rho Psi chapters:
Emory University,
University of
Pennsylvania, St
Olaf College and
Oberlin College!

Movies and Discussions at Emory

In January, we were accepted into the national Nu Rho Psi organization as Alpha chapter in Georgia. In February, we held a coffeehouse general body meeting to celebrate our new status and to discuss our focus as a chapter.

While last semester we focused on building membership and making our presence visible to the Emory community, this semester our goal is to look within and provide more events specifically designed for our members and those with an interest in neuroscience.

Our spring induction into the national Nu Rho Psi was held on February 10, during which we added **39** new members to our chapter. We are organizing a movie night in March

on the topic of drug addiction, its effect on the brain and its roll in American pop culture. The 'movie' will feature clips from *Requiem for a Dream* and rock n' roll documentaries, followed by discussion led by our special guest, Dr. Howard Kushner, an expert on the neuroscience of drug addiction and Emory professor.

Also in the works is a tour of the Yerkes National Primate Research Center in late March. At that time we will be celebrating the creation of our 2011-2012 Nu Rho Psi executive board. We plan to wrap up spring 2011 with one volunteer event, another neuroscience topic-themed movie or talk and discussion, and one event by the new executive board.

-Riikka Hess and Kristin Partain Co-Presidents



Trivia Night at Emory University

University of Southern California

This has been a very exciting year for the Nu Rho Psi chapter at the University of Southern California. We recently initiated 23 new members and look forward to their continued involvement in Nu Rho Psi.

In addition, our chapter advisor, Dr. Michael Quick, was appointed Executive Vice Provost of the university.

Last semester, Dr. Michael Jacowec spoke at our chapter's first Neuroscience Dinner Lecture. Dr. Jacowec highlighted his research on Parkinson's disease and exercise-induced neuroplasticity in the basal ganglia.

Our chapter also began a partnership with Interaxon, another student-run neuroscience organization on campus whose members teach local elementary school children about the brain and get them excited about science. Nu Rho Psi and Interaxon volunteered at the Los Angeles Brain Bee together.

Our chapter also participated in the AIDS Walk Los Angeles to raise money for AIDS research.

We look forward to an exciting semester of activities including Relay For Life and a Neuroscience Professor Appreciation Dinner!

-Rebecca Murday, Chapter President

NRP Chapters

Baldwin-Wallace College
Berea OH

Baylor University
Waco TX

Denison University
Granville OH

Dominican University
River Forest IL

Drew University
Madison NJ

Johns Hopkins University
Baltimore MD

Knox College
Galesburg IL

Macalester College
St Paul MN

Miami University
Oxford OH

Oberlin College
Oberlin OH

Pioneer Valley Chapter
Smith College and
University of Massachusetts
Northampton and Amherst MA

St Mary's College
St Mary's City MD

St Olaf College
Northfield MN

Trinity College
Hartford CT

Tulane University
New Orleans LA

Union College
Schenectady NY

University of California at
Irvine CA

University of Scranton
Scranton OH

University of Southern California
Los Angeles CA

University of St Thomas
St Paul MN

Ursinus College
Collegeville PA

If your chapter has news for Nu Rho Psi News, please email to the current editor Jan Thornton (jan.thornton@oberlin.edu)

Hopkins at the USA Science Festival

Nu Rho Psi students began in January 2010 to develop ideas for our Undergraduate Neuroscience Program's participation in the USA Science Festival, held on the National Mall-Washington D.C. October 23-24, 2010. This is a bi-yearly event, first held in 2008.

After many brainstorming sessions, we came up with the theme of our booth: **Networking Neurons: Making Super Synapses**. To make the story of neurons exciting, we collected pictures of neurons from Hopkins contributors and had them enlarged to poster size. We also lined our booth with illustrated drawings of three neurons synapsing with each other.

There was a large model of a neuron showing details, courtesy of Mike McCloskey. One hundred mini plush neurons were sewn together to communicate the message "JHU". Our student volunteers told the story of how the billions of neurons in our brains work.

The festival participants had their photos taken with our Neuron Mascot. To complete a keepsake neuron key-chain, they sent their own message with alphabet beads down the axon of a neuron. There were approximately 500,000 visitors to the Festival.



A human Neuron Mascot

Nu Rho Networks

Undergraduate Conferences and Internships

By Vadim Yerokhin, Union College

Internship/Research opportunities:

The Faculty for Undergraduate Neuroscience website has a list of undergraduate internships that are available. You can find the list at <http://www.funfaculty.org/drupal/>

National Science Foundation (NSF) offers numerous opportunities to undergraduates such as funds for innovative research projects aimed at advancing the understanding of the brain. Find information at <http://www.nsf.gov/funding>

Undergraduate Scholarship Program (UGSP). Sponsored through NIH (National Institute of Health). The NIH UGSP offers competitive scholarships to undergraduate students from disadvantaged backgrounds who are committed to careers in biomedical, behavioral, and social science health-related research. This program offers numerous scholarships, paid research training and paid employment at the NIH after graduation. See <https://www.training.nih.gov/programs/ugsp> for more information.

Undergraduate Neuroscience Conferences:

NorthEastern Undergraduate Research Organization for Neuroscience (NEURON). NEURON's mission is to provide a forum for neuroscience undergraduate and graduate students to discuss their work, to provide faculty an opportunity to discuss curricular and research issues in neuroscience, biopsychology and related areas. This year NEURON took place at Hunter College in New York, NY on April 10th. Visit <http://www.quinnipiac.edu/neuron.xml> for more information.

SYNAPSE: Symposium for Young Neuroscientists and Professors of the SouthEast held its annual meeting at Wake Forest University in March 2011. SYNAPSE provides an opportunity for young neuroscientist to present their research and learn more about the field. In 2012 the meeting will be at Francis Marion University. See <http://synapse.cofc.edu/>

MIDBRAINS: The Undergraduate Neuroscience Conference of the Upper Midwest. This year MIDBRAINS will be held on April 30th at St. Olaf College. Abstract submissions are due April 19th and online registration for the conference is due April 24th. See <http://www.macalester.edu/midbrainconference/> for more information.

mGluRs: Midwest/Great Lakes Undergraduate Research Symposium in Neuroscience. Third annual mGluRs will be held in Wooster, OH for states touching Ohio (and Ohio) on October 8th. The conference will provide an opportunity for undergraduates to exhibit oral and poster presentations of their research. See <https://sites.google.com/a/owu.edu/mglurs/> for further details.

American Academy of Clinical Neuropsychology: AACN will hold an annual meeting at Hyatt Regency Washington on Capitol Hill in DC on June 9th-11th. AACN welcomes undergraduate students who are working with neuropsychology faculty to submit and share their research findings at this conference. See <http://www.theaacn.org/index.php>.

Presenting your
research at a
scientific
conference is a
great way to
network with
other
neuroscientists

Baldwin-Wallace: Brains, Ears and Pickles



This year, Nu Rho Psi at Baldwin-Wallace inducted seven new members into our chapter.

For National Brain Awareness Week, Baldwin-Wallace's group participated by presenting "You Can't Taste a Pickle With Your Ear" by Harriet Ziefert, a book about the five senses, to kids ages 3-8 at the Berea Branch Library.

Kids colored and did crafts relating to their senses and got to see brains from rabbits, rats, cats, and sharks.

Next year we hope to bring Brain Bee back, and continue to provide Brain Awareness to our campus and community.

-Jessica McClarren, Chapter President



UC-Irvine : Spreading Awareness and Recognition

Nu Rho Psi was created for many purposes, ranging from recognizing the success of students involved in neuroscience to spreading the awareness of the field to the scientific community at large. The Beta Chapter at the University of California, Irvine perpetuated these mission statements, along with many others, by joining the graduate student group, Research and Education in Memory Impairments and Neurological Disorder (ReMiND) in hosting the first ever undergraduate division of their Emerging Scientists Symposium on Neurologic Disorders.

ReMIND, a graduate division of the Institute for Memory Impairments and Neurological Disorders (MIND) at UCI, hosts an annual symposium that presents the latest research in neuroscience. Traditionally this event is open to the entire scientific community but most presenters are graduate students or postdoctoral researchers. The Nu Rho Psi Beta Chapter linked with ReMIND and this year ReMIND presented the opportunity for the Beta Chapter to participate in their annual symposium. The Beta Chapter decided to establish a poster presentation session hosted by undergraduates involved in neurologically based research to present at the symposium.

The symposium opened with graduate and postdoctoral researchers presenting their work enthusiastically, despite the early hours. The lunch hour provided an opportune time for undergraduates to present their posters while the crowd satiated their appetites for food and knowledge. Some of the graduate students served as judges for the prize that was awarded to the most outstanding presentation.

After the presentations, students were given certificates of completion to commend their commitment to improving the field of neuroscience through research and discourse. The afternoon session was highlighted with the keynote presentation by renowned neuroscientist Dr. Fred Gage, and concluded with the presentation of awards and recognitions.

-Paul Lapis, Chapter Vice-President



Undergraduates at the symposium showing their research and certificates

Brain Bees and Kids Judge! Neuroscience help enhance awareness of neuroscience

University of Scranton

In the past year, Nu Rho Psi helped put on Kids Judge! Neuroscience and the Northeastern Pennsylvania (NEPA) Brain Bee.

Kids Judge! Neuroscience is an annual event where local Girl Scouts come to the University on a Saturday morning, and have current Neuroscience students teach them about topics in neuroscience using hands-on activities.

NEPA Brain Bee is one of a series of nationwide competitions, in which high school students compete in both a written test and oral competition based

off of a Brain Facts textbook. The top three winners get prize money, and the first place student gets to move on to the National Brain Bee in Maryland. A student/faculty mentor is provided for the winning student to help her study for the lab practical part of the National Brain Bee.

Additionally, Nu Rho Psi helps sponsor a monthly meeting called "What's News in Science, Medicine, and Technology." Students and faculty come together for lunch to look at and discuss current research articles.

In April, we have our

annual induction ceremony. We have a key note speaker (usually a faculty member) who welcomes the accepted students into our society. We also provide the new inductees and their families a nice lunch buffet. After the ceremony, there is a meet and greet with the Neuroscience/ Psychology faculty.

We will also co-sponsor a field trip with the Scranton Neuroscience Society to the brain exhibit at the American Museum of Natural History.

-Justin Steinman, Chapter President

Trinity College Bees and Activities

Our Nu Rho Psi chapter and Neuroscience club work together.

In February, we held the Trinity College Brain Bee. High School students from the area came to compete on brain facts and all got t-shirts and prizes. We sponsored the winner, all-expenses paid, to the national competition.

We also have volunteered with the Brain Injury Association of Connecticut at social functions, such as the Valentine's Day dance.

Many of our students attended the NorthEast Undergraduate Research on Neuroscience conference and groups went to both the Society for Neuroscience meeting and the International Neuro-

psychological Society meeting.

Speakers on campus have included "BrainGate: A Neural Interface System for People with Paralysis" by Beata Jarosiewicz, Ph.D. Brown University and "Towards an embryonic stem-based therapy for neurodegenerative disorders" by Laura Grabel, Ph.D. Wesleyan University.

Volunteering with the Pioneer Valley Chapter



Brain Tumor Retreat at Camp Sunshine

Over the past year we have hosted guest speakers, meet-and-greets, and a neuroscience alumni panel at Smith College; in addition, we have participated in several community service opportunities, including volunteering in a local Alzheimer’s unit (through the UMass BRAIN club), volunteering at brain tumor retreats at Camp Sunshine, and in a Multiple Sclerosis Walk. We will also teach a sheep brain dissection to a local high school anatomy class for Brain Awareness Week.

Smith applied as a chapter to volunteer at Camp Sunshine, a non-profit retreat for terminally ill children located on the shore of Sebago Lake in Maine. The camp is the only program in the nation that aids in mitigating the strain of a life-threatening illness, not just on the person with the illness but also on their immediate family. Nu Rho Psi organized and attended brain tumor retreats over Smith College's Fall Break and December 3-5.

At Camp Sunshine, children are assigned to day-camps, where they are able to laugh and play with other children who have similar disorders. This helps them to discover that there are other people who are like them.

Activities include mini golf, boating, rock climbing and challenge courses, and discussion groups. Each night, children and parents come together and take part in events including talent shows, magic shows, pumpkin carving, and bonfires.

Each session ends with the launch of a “wish-boat” for each child, which they have built. A candle is lit at the center of the boat before it sails off. Children and parents are encouraged to make a wish as each boat is sent out.

An important goal as a volunteer is to help the children and families just feel like families. I found that the siblings of the sick children need a great deal of attention as well. I had an amazing time and I plan

on returning for many years.

-Nina Waldron, Chapter President (Smith College)

At U Mass, Nu Rho Psi joined with The B.R.A.I.N. (The Body Responsible for the Advancements in Neuroscience) club which was established to strengthen the relationship between faculty and students interested in Neuroscience and related disciplines.

Our members volunteer weekly with Alzheimer’s patients at a local rehabilitation center. We wanted to make a difference in the community. By simply putting together a puzzle, the patient is engaged. By coloring and talking with the patients we can help develop and maintain appropriate cognitive and social skills. From this experience volunteers learn how to connect with the patients and try to understand their disorders.

We made Valentine’s Day cards for the Alzheimer’s patients and members made donations to purchase new supplies for the Alzheimer’s unit. BRAIN was able to purchase new markers, crayons, playing cards, and puzzles for the unit.

We will continue the tradition of volunteering at the Multiple Sclerosis (MS) Walk. We got involved with this charitable event in support of a BRAIN member, who has a parent with MS.

This has been a great opportunity to get involved and establish ties with the community. Members of Nu Rho Psi on both campuses will be joining BRAIN for this walk.

-Celeste DiGloria, Chapter Vice President (U Mass Amherst)

The Pioneer Valley Chapter includes both University of Massachusetts -Amherst and Smith College



Presenting art supplies to the Alzheimer’s Disease unit

Brains at Baylor University



Baylor University Nu Rho Psi students showing their extra brains

Nu Rho Psi members have presented original research at conferences...

Over the last year, the Baylor University chapter of Nu Rho Psi has participated in many service events such as Relay for Life (a fundraiser for the American Cancer Society), Up 'til Dawn (a fundraiser for St. Jude Children's Research Hospital, and Steppin' Out (a Baylor service event where we help the local community with projects such as cleaning parks and painting houses).

Over the last 3 semesters (since spring of 2010), we have inducted 18 new members, have graduated 7 members, and will graduate 8 more this May. Several of our members have graduated with distinctions such as Who's Who, Phi Beta Kappa, and Summa Cum Laude, and are pursuing careers in either neuroscience graduate school, medical school, optometry school, or pharmacy school.

Several of our members will be

competing in the 2011 Brain Bowl on May 5th in San Antonio against the University of Texas San Antonio and Texas A&M University. Since being invited to the competition over 10 years ago, Baylor holds a near-perfect record. Last year's winning team members were also mostly members of Nu Rho Psi.

-Becky Piroga, Chapter President



Baylor University Nu Rho Psi officers for the 2010-2011 academic year.

Macalester Academics and Outreach

This year at Macalester College, Nu Rho Psi members have been active in a number of activities encompassing both academics and outreach.

Macalester members of Nu Rho Psi have attended a number of lectures on campus and discussed the information gleaned from these talks. In addition to this, Nu Rho Psi members have presented original research at conferences ranging from Midbrains, a Midwest regional undergraduate research conference, to the Society for Neuroscience meeting in San Diego.

Members have also aided in the

organization and execution of outreach events like Kids Judge! Neuroscience, which teaches underprivileged children from the twin cities about neuroscience, giving them a positive experience with science and encouraging them to pursue their academic interests.

Nu Rho Psi members at Mac also helped to organize Brain Awareness Week events, where the student body, and the community at large, are taught the importance of the brain and a little bit about how it functions through discussions, movie showings, and trivia events.

St Thomas Majors and Alumni Pathways



Building snow brains in the winter

Since instituting a formal interdisciplinary neuroscience major at the University of St. Thomas in the fall of 2008, we've experienced rapid growth. Last year our first class of 20 neuroscience students graduated, and now we have over 100 declared majors. We're expecting this spring's class of Nu Rho Psi inductees to

double our existing Nu Rho Psi alums. Most of our honorees are only inducted during or after their senior year, so we usually combine forces with the neuroscience club.

Our alumni are bringing their expertise in neuroscience to a variety of post-graduate careers. They are currently enrolled in graduate and professional programs in dentistry, medicine, nursing, counseling psychology, physical therapy, occupational therapy, law, ministry, and of

course, neuroscience.

Nu Rho Psi and our neuroscience club have been active this year by bringing in speakers from the Minnesota Brain Injury Association, the University of Minnesota graduate program in Neuroscience, the Medtronic medical devices corporation, and a neuropsychologist from the Fraser autism center.

We've also helped the long Minnesota winter pass by constructing a snow brain to help promote international Brain Awareness Week.

"...our first class of 20 neuroscience students graduated, and now we have over 100 declared majors"

Miami University: Building Neuroscientists



A future neuroscientist inspired by Miami University students

Miami University's chapter of Nu Rho Psi (Gamma in Ohio) was established in December of 2008. Thus far, we have inducted 32 national members including 15 undergraduates, 6 graduate students, and 11 faculty. In addition, we have

begun a "Friends of Nu Rho Psi" membership category for our local chapter and currently have 4 undergraduate members.

This year we have conducted a number of outreach activities with local preschool and elementary school students, and hosted three colloquium speakers.

We also initiated a number of Brain Awareness Week activities on campus and in our local community including a research poster session, neuroscience scavenger hunt,

Bowling for Brains, and community library displays.

Tulane's New Members



Tulane University Nu Rho Psi 2010 Inductees and Faculty Members

The Early History of Nu Rho Psi (part 2 of 6)

Nu Rho Psi was founded in 2006, but its history can be traced to the early 1990s with the founding of Faculty for Undergraduate Neuroscience (FUN).

History of FUN

It was proposed that an organization for undergraduate neuroscience faculty should be established (*see Nu Rho Psi News, Vol 3 Issue 1*). After considerable discussion in the spring of 1992, the name Faculty for Undergraduate Neuroscience was adopted. An Executive Committee was formed consisting of J. Ramirez (Davidson), S. Frutinger (Denison), S. George (Amherst), D. Smith (Oberlin), and G. Dunbar (Central Michigan).

On the basis of a survey, the major objectives for FUN were established by the membership: (1) The establishment of a Travel Award to support travel to Society for Neuroscience Annual Meetings by outstanding undergraduate neuroscience students. (2) The establishment of a Society for Neuroscience Award for Excellence in Undergraduate Teaching. (3) The establishment of a Travel Award for faculty from institutions with no travel support. (4) The creation of a newsletter highlighting undergraduate teaching. (5) The development of a mechanism for supporting regional faculty development workshops for neuroscience faculty from primarily undergraduate colleges and universities.

Early History of Nu Rho Psi

As ideas for FUN began to be discussed in 1991-92, Joe Achor of Baylor University suggested the formation of a national honor society in neuroscience, which would be called Nu Rho Psi for "neu-ro-sci(ence)." While the suggestion was well received, it was also deemed premature given the other priorities of the fledgling organization.

In the mid-1990s Achor renewed his interest in the

national honor society. He originally planned to use the Constitution and By-Laws of Psi Chi as a model for the neuroscience honor society, but decided to explore the organizational materials for other honor societies.

The plan was for the neuroscience honor society documents to be so thorough and well-conceived that they would serve the neuroscience community for many years with only minimal revisions. To this end Achor viewed the initial process as involving four

This is the second of six articles adapted from a longer description originally written by Joe Achor (Baylor University). The first article was in Nu Rho Psi News Vol 3, Issue 1. The full-length version can be found at <http://www.nurhopsi.org/drupal/>

phases. The **first phase** was to comprehensively review the constitution and/or by-laws for a large number of honor societies to ascertain (1) the common features, (2) the general structure of the documents, (3) the fine details within each section of each document, (4) the thoroughness versus brevity of each document, and (5) the strengths and weaknesses of each document. The **second phase** was to create a general draft of the organizational document. The purpose of this skeleton version of the document was both to have a framework from which to work and also to avoid the chaos which might arise by trying to have a committee decide which of the dozens of "models" to follow. The **third phase** was to organize a committee to discuss the skeleton version of the document. The **fourth phase** was to have subcommittees discuss sub-areas of the skeleton document and create a working document, which would be periodically reviewed, revised, and approved by members of the committee.



Nu Rho Psi, the National Honor Society in Neuroscience, recognizes students who have achieved excellence in scholarship in neuroscience. It also encourages professional interest and excellence in scholarship, advances the discipline of neuroscience, encourages intellectual and social interaction, and career development in neuroscience, increases public awareness of neuroscience and its benefits, and encourages community service.

Additional information is available at: <http://www.nurhopsi.org/drupal/>