Editor’s Farewell Note
by Stephanie Willard, Editor of The Neurotransmitter

It has truly been my pleasure to serve as the Editor of The Neurotransmitter since the first issue was published four years ago. During this time, we’ve produced twelve exciting issues, including the special Brain Awareness Week issue in front of you today. As the official publication of the Western North Carolina Chapter of SfN (WNCSfN), our foremost intention for the newsletter was and still is to foster communication and collaboration among our Chapter members, as well as the larger scientific community. With each issue, we bring you neuroscience-related news that affects our Chapter, notify you of upcoming SfN annual meeting deadlines, and provide information about WFU Brain Awareness Council (BAC) outreach opportunities, among many other recurring features. Although my tenure ends with this issue, the newsletter will continue to be published and staffed by both faculty and graduate student Chapter members. The issue in front of you today outlines the many exciting Brain Awareness Week events that the WFU BAC is sponsoring, and provides details about how you can get involved.

I sincerely hope that you have enjoyed reading each issue as much as I have loved publishing them. And, as always, we hope you find the contents of this issue useful and informative, and welcome your feedback and suggestions.

Staying Sharp in Winston-Salem!
by David Riddle, Ph.D., WNCSfN President

On Saturday April 28th, the Western North Carolina Chapter of the Society for Neuroscience, in cooperation with the Dana Alliance for Brain Initiatives and with funding from the MetLife Foundation, will sponsor Staying Sharp, a public education forum on healthy brain aging. Staying Sharp forums are dynamic discussions led by an expert panel followed by a Q&A session with the audience. This will be the first forum in our area and will be held in the atrium at Biotech Place. The session will focus on how the brain changes as we age, memory loss, brain diseases and disorders, and maintaining cognitive function. The panel will include Dr. Paul Laurienti and other experts from the Western North Carolina neuroscience community. Preceding the Staying Sharp forum, at 9:00 AM there will be a keynote address by Dr. Gary Small, geriatric psychiatrist at UCLA and author of the New York Times bestseller The Memory Bible and other popular books on brain aging. Members of the Chapter will be asked to assist during the program, and members of the Wake Forest Brain Awareness Council will lead public education activities at the site.

The invitation from the Dana Alliance to partner in this event is direct result of the energy and creativity exhibited by Chapter members and leadership in recent years. The Staying Sharp event represents a unique opportunity for local scientists to educate members of the community about what individuals can do to protect their quality of life as they age. It also is a valuable opportunity to educate the public about the importance of supporting biomedical research. The Chapter leadership hopes that all members of the Chapter will attend this free event as participants, educators and advocates.
**WFU Brain Awareness Week 2012**

By Lindsey Pattison, Neuroscience Graduate Student

**Brain Awareness Week** (BAW) is a global campaign to increase public awareness of the progress and benefits of brain research. This year, BAW will take place from March 12-18 and the **WFU Brain Awareness Council** (BAC) is hosting and participating in various events in our local community for people of all ages in celebration of the brain. BAW was founded and is coordinated by the Dana Alliance for Brain Initiatives and is supported by the Society for Neuroscience. Please join the WNCSIN and WFU BAC in this brainy celebration!

**BRAIN AWARENESS DAY at SciWorks**

**Tuesday March 12, 2012, 9 a.m. – 2 p.m., 400 Hanes Mill Rd., Winston-Salem, NC**

The **WFU Brain Awareness Council** together with the Western NC Chapter of the Society for Neuroscience, **SciWorks** and Time Warner Cable’s **Connect a Million Minds Initiative** are hosting **Brain Awareness Day** at SciWorks on March 13th from 9 a.m. – 2 p.m. Area schools have signed up to bring approximately 350 middle and high school students to the event. Our volunteers will organize stations throughout the museum focusing on various aspects of our favorite thing—the brain! This year’s stations include: Human Brain, Comparative Brains, Hearing, Vision, Visual Plasticity, Visual Illusions, Build a Neuron, Two-point Discrimination, Multisensory Integration and Careers in Science. Volunteers will receive an awesome BAW t-shirt and we will also have snacks and drinks available. We are still in need of a large number of volunteers, **little to no experience is required to volunteer**! Our BAW events cannot be made possible without support from our wonderful volunteers, so please get involved and **sign up** today!

**SIGN UP INSTRUCTIONS:** Click on **Sign In** at top right of page if you already have an account, or **Join** if you do not have an account. After returning to the BAC wikispaces page, click **Join This Space**. After being authenticated (you should receive an email) return to the address above and log in. Once you are logged in you can edit the page - click on the **Edit This Page** button outlined in green (in the top right corner). To sign up for a station just add your name to that cell in the table. Then click the gray **Save** button at the top or bottom of the page (on the right-hand side) and your name should be added. Please email lipattis@wfubmc.edu if you have any problems.

**The Forget Me Not Project**

**Friday March 16 – Saturday March 17, 2012, Salem College, Winston-Salem, NC**

In 2010, Garrett Davis began developing an idea to allow one of his most poignant works to become a means for communicating to diverse audiences about Alzheimer’s disease with his production entitled “**Forget Me Not**.” Davis realizes the power of the arts to reach out to audiences with understanding about complicated issues, such as Alzheimer’s disease and the value of grassroots community involvement. His team has brought together community and faith based groups, along with related social service agencies, professional associations and celebrity talents to bring attention to and raise awareness about Alzheimer’s disease in a dynamic entertainment format that will tour the country visiting rural communities as well as large metropolitan areas with a message of hope and a charge for advocacy in addressing the health threats of Alzheimer’s disease. Tickets for the Forget me Not play are $20 and can be purchased at (888) 901-9726.

**Schedule of Events:**

**Friday, March 16, 2012**

Forget Me Not VIP Celebrity Gala, 6:00 - 9:00 p.m.

**Saturday, March 17, 2012**

Forget Me Not Prayer Breakfast, 9:00 - 10:30 a.m.

Forget Me Not Health Fair, 11:00 a.m. - 2:00 p.m.

Forget Me Not Stage Play, 7:00 - 9:00 p.m.
Brain Awareness Season 2012, cont...

- BRAIN POWER! Family Fun with Neuroscience at the Children’s Museum
  **Sunday March 18, 2012, 1 – 4 p.m., Children’s Museum, 390 S. Liberty St., Winston-Salem, NC**

It’s never too young to start learning about the brain. The WFU Brain Awareness Council together with the WNCsIn are hosting Brain Power! Family fun with Neuroscience at The Children’s Museum of Winston Salem on March 18th from 1 – 4 p.m. Age-appropriate brain-themed stations will be operated by our volunteers throughout the museum. We are still looking for volunteers to sign up! Little to no experience required. Faculty and students don’t miss this great opportunity if you have small children! Touch a human brain! Compare the difference between a rat and pig brain! Learn how your brain changes! And more! Museum admission is $7 for adults and children over age 1, $6 for seniors above age 62 and free for children under 1 year. For more information visit their website or call the Museum at (336) 723-9111.

- 5th Annual Brain Art Contest
  **Entries due by 5 p.m., Friday April 6, 2012**

Science requires a creative mind. To celebrate the start of Brain Awareness Week 2012, the BAC, WNCsIn and The Children’s Museum of Winston Salem want you to submit a brain art project. We are welcoming entries from students in grades K-5 to create art with the theme “I keep my brain healthy by ______,” grades 6-8 with the theme “What has my brain done for me lately?” and grades 9-12 on the theme “How my brain has changed since I was born.” All entries must be submitted by Friday April 6th by 5 p.m. to The Children’s Museum of Winston Salem at 390 S. Liberty St. (or, teachers can send entries to Adrienne Loffredo at CERTL via interoffice mail). The winning entries will be on display at the Brain Injury Association of North Carolina’s Walk and Roll-a-thon on April 21st and at Staying Sharp hosted by the WNCsIn on April 28th. Please contact Lindsey Pattison at lipattis@wakehealth.edu for additional information. Prizes will be awarded to the top three entries in each category. Good luck!

- Brain Injury Association of NC (BIANC) Walk and Roll-a-thon for Brain Injury Prevention
  **Saturday April 21, 2012, 8:30 a.m. – 12:30 p.m., Tanglewood Park, Clemmons, NC**

Walk for Thought! Walk for Safety of Athletes! Walk for the Troops! The Brain Injury Association of North Carolina (BIANC) will be hosting their 6th annual Walk & Roll-a-thon at Tanglewood Park in Winston Salem, NC on Saturday April 21st to raise money to benefit people with brain injury and their families. Contact the Team Leader, Lindsey Pattison at lipattis@wakehealth.edu to join the BAC/WNCsIn team. If you can’t participate, please visit our BAC website for donation information to support this great cause! Registration is $20 per person, and everyone receives an event t-shirt and lunch following the walk. There are also raffles and speakers to make this a fun and informative event on brain injury.

**Schedule of Events:**

- **Registration:** 8:30 – 9:00 a.m.
- **Walk & Roll:** 9:00 – 10:00 a.m.
- **Vendor & Activities:** 9:00 a.m. – 12:00 p.m.
- **Lunch:** 11:30 a.m.
Wake Forest Biotech Place Debuted on February 21st!

Wake Forest Baptist Medical Center opened the doors to Wake Forest Biotech Place, a new state-of-the-art, world-class 242,000 square foot biotechnology research and innovation center. Located at 575 N. Patterson Ave in downtown Winston-Salem, it is designed to allow more growth of Wake Forest Baptist’s many renowned research departments and promote start-up companies generated by researchers’ discoveries, as well as provide space for established biomedical research companies. Biotech Place is the sixth building in the growing Piedmont Triad Research Park (PTRP).

Biotech Place is comprised of two completely restored former tobacco facilities once owned by R.J. Reynolds Tobacco Co. and donated by the tobacco giant to PTRP. Baltimore-based Wexford Science & Technology, LLC, completed the careful restoration and retrofitting of the buildings, creating a unique structure in only 18 months at a cost of more than $100 million, making Wake Forest Biotech Place the largest capital investment for a construction project in the history of downtown Winston-Salem. “The opening of this modern, high-tech research and innovation center represents a major milestone in Wake Forest Baptist’s development and growth of a new biotechnology-based economy in Winston-Salem designed for the 21st century,” said John D. McConnell, chief executive officer of Wake Forest Baptist Medical Center. “We are heralding a new era of social and economic progress for current and future generations that will bring new jobs, new businesses, and medical breakthroughs to the people of Winston-Salem, Forsyth County, North Carolina and beyond.”

The new Wake Forest Biotech Place features a 7,500 square foot glass atrium that illuminates the building’s center, is five stories tall on the south side and three stories high on the north side. The south end of the building was originally constructed in 1937 and features a distinctive glass block exterior that was painstakingly restored. The northern end of the building has a brick façade and was completed in 1962. The world class facility also incorporates green technology and follows the principles of Leadership in Energy and Design (LEED).

The redevelopment was made possible through the North Carolina Mill Rehabilitation Tax Credits program and the federal New Market and Historic Tax Credits program. Doug Edgeton, president of Piedmont Triad Research Park remarks, “The new facility is a wonderful example of the benefits of public-private partnerships designed to breathe new life into once blighted areas.”

Wake Forest Baptist is the building’s largest tenant. The first floor/basement consists of a pedestrian entrance, space for a café, Allegany Federal Credit Union, office space to house the Childress Institute for Pediatric Trauma, business accelerator space, and the Department of Biomedical Engineering and their associated research labs. The second floor serves as the main entrance/lobby and houses the Departments of Biochemistry and Microbiology and Immunology. The third floor features space for the to-be-named Centers of Excellence laboratories and the Department of Physiology/Pharmacology. The fourth floor is home to Carolina Liquid Chemistries and additional pre-built lab space for future private companies. The fifth floor houses the Piedmont Triad Research Park marketing center and offices and additional build-out space for private companies. For more information, a virtual tour, and more photos of Biotech Place the Wake Forest Biotech Place Download center.

Click here for the original Wake Forest Baptist Medical Center news release.
7th Annual Women’s Health Research Day:
Does Mom Matter?
Mechanism of Maternal Contributions to Offspring Health

Tuesday May 1, 2012, 8 a.m. – 4 p.m., Babcock Auditorium,
Wake Forest School of Medicine, Winston-Salem, NC

One of the missions of the Women’s Health Center of Excellence is to educate students, health care providers, and the public on issues in women’s health. Women’s Health Research Day is a showcase for the achievements of investigators in this area. This year’s focus is on Disease Susceptibility and Epigenetics. The Keynote Speaker is Moshe Szyf, PhD, from McGill University, and he will talk about “Early Life Environment and the Epigenome.” The Plenary Speaker is Bruce McEwen, PhD, of Rockefeller University, and his presentation will focus on “Stress and Anxiety Across the Lifespan: Structural Plasticity and Epigenetic Regulation.” For registration and further information, visit http://www.wakehealth.edu/WHCOE/WHRD.htm.

Call for Abstracts!
Submission deadline April 20, 2012

- Poster content must be any topic related to women’s health.
- Open to students, fellows, post-docs and staff.
- Student ‘Best Poster’ Competition with Award and $100 Prize.
- Poster guidelines. Questions? Please contact whcoe@wfubmc.edu.

Science Café: Did I Already Tell You That?
Tuesday March 20, 2012, Old Staley’s restaurant, 2000 Reynoldda Rd., Winston-Salem, NC

Wake Forest University Professor of psychology Dr. Janine Jennings will discuss memory loss in older adults on March 20th at Old Staley’s. Come out for dinner, drinks and science! Science Café is an international movement that brings people together for an evening of discussion about science. This series is co-sponsored with SciWorks and Sigma Xi, the Scientific Research Society. Teachers receive CEU certificate of attendance. Free to all! Search Winston-Salem Science Café on Facebook and “like” their page to get updates on all upcoming Science Cafés!

Future Events:
- April 20, 2012: “Does Imaging Help Us Understand How the Brain Handles Music?”

LabLit.com is a website that focuses on the culture of the scientific laboratory, including topics related to scientists, labs and science, and how that culture is both portrayed and perceived. The site is open to both non-scientists as well as scientists, and their “goal is to inform, entertain and surprise.” Check out these Neuro poems at LabLit.com!
SCIENCE COMICS PRESENTS:

YOUR AGING BRAIN

BY DWAYNE GODWIN AND JORGE CHAM

LATE IN HIS LIFE, MARK TWAIN ONCE WROTE:

“My faculties are decaying now and soon I shall be so I cannot remember any but the things that never happened.”

IT IS TRUE THAT AS WE AGE, THE STRUCTURE OF OUR BRAIN CHANGES.

AFTER AGE 40, GENES RELATED TO SYNAPTIC PLASTICITY AND PROTEINS THAT REGULATE NEUROTRANSMISSION BEGIN TO GET TURNED DOWN.

THIS CHANGE IS DUE TO THE ACCUMULATED DAMAGE TO PROMOTER REGIONS OF OUR DNA, THAT HELP ACTIVATE THESE GENES.

AT THE SAME TIME, OUR BRAINS ARE LESS ABLE TO HANDLE STRESS, WHICH DISRUPTS OUR COGNITIVE PROCESSES.

THE GOOD NEWS IS THAT WITH A HEALTHY LIFESTYLE WE CAN SLOW DOWN SOME OF THESE DECLINES.

ANTIOXIDANTS IN THE FOOD WE EAT CAN HELP STOP THE FREE RADICALS THAT DAMAGE OUR DNA.

AND REGULAR EXERCISE CAN PRODUCE GROWTH HORMONES IN OUR BODIES THAT HELP KEEP OUR MEMORY IN SHAPE.

WE CAN’T STOP AGING, BUT WITH THE RIGHT ATTITUDE WE CAN EXTEND AND ENJOY THE YEARS AHEAD.

AS TWAIN ALSO ONCE WROTE:

“We can’t stop aging, but with the right attitude we can extend and enjoy the years ahead.”

“Wrinkles should merely indicate where smiles have been.”

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IMPORTANT!! Act by March 16: Urge Your Representative to Support a $1.3 Billion Increase for NIH in FY2013! Contact your U.S. Representative TODAY!