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Above, an illustration by Atlanta artist Christopher Hickey forms the centerpiece of the new CBN viewbook. At right, the redesigned CBN logo.

New Viewbook, Redesigned Logo Unveiled

This fall, the CBN unveiled a modular viewbook showcasing its research, education, and knowledge transfer programs. The publication consists of a bi-fold folder with two pockets, information booklet, and CD-ROM containing a five-minute video on the Center. The content of the booklet and the CD-ROM can be modified according to the target audience.

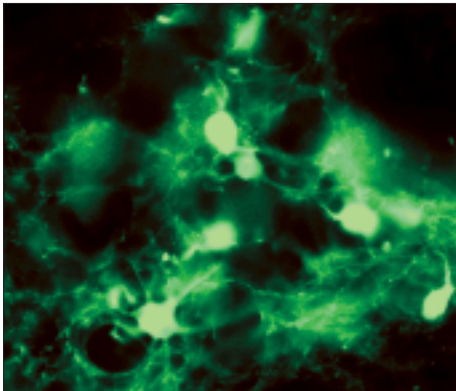
As part of the Center's visual identity program, the CBN has developed a new logo consisting of line art of a brain and a redesigned wordmark that will be incorporated into all CBN publications, signage, and the Center's web site.

CBN faculty are asked to discontinue use of all other CBN logos and incorporate the new version into their printed and electronic publications. To obtain the logo or for more information, contact Poul Olson via e-mail at biopeo@langate.gsu.edu. ■





Viral Vectors Now Available For Assessing Genes' Effects on Behavior



A fluorescent green protein tag illuminates neurons in a mouse brain infected by a lentivirus vector.

Viral vectors, one of the most powerful tools for studying the behavioral effects of genes, are now available free of charge to CBN researchers through the Cellular Core.

The technology, used increasingly in neuroscience research, employs the machinery of viruses stripped of

their pathogenic properties to integrate the DNA of a gene into neural cells. Unlike other less effective gene transfer techniques whose effects are transient, viral vectors result in a nearly 100 percent transfection rate of the targeted cells that endures for the life of the cell.

According to Emory University's GuoFu Fang of the Cellular Core, viral vector technology is an extremely efficient means for over-expressing or attenuating gene expression either *in vivo* or *in vitro*. The technology, he added, gives researchers the means to design experiments that assess a gene's effect on behavior over both the short and long term.

Fluorescent protein tags can be attached to viral vectors, allowing a visual assessment of those cells that

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Acrophobia Treatment Makes Headlines

On Nov. 25, Emory University's Mike Davis, Ph.D., head of the Fear Collaboratory, was interviewed on *CNN Headline News* about the acrophobia treatment developed by CBN researchers. The CNN interview followed coverage in November by more than 100 media outlets of a clinical study that found acrophobics who took d-cycloserine were twice as more likely to unlearn their fears than those who took only a placebo. ■



CNN Headline News anchor Sophia Choi interviews Mike Davis about the acrophobia treatment.

MacLeish Honored at SFN Conference

With more than 80 CBN faculty members and graduate students presenting posters on their research, the CBN had a significant presence at the 33rd annual meeting of the Society for Neuroscience held Nov. 8-12 in New Orleans, La.

One of the highlights of this year's conference was the award of the "Diversity Program in Neuroscience Lifetime Achievement Award" to Peter MacLeish, Ph.D., director of the Neuroscience Institute at the Morehouse School of Medicine and a member of the CBN Management Team, for his significant contributions to the education of minorities, including teaching and serving in high administrative positions in universities and professional organizations.



MacLeish

The CBN's acrophobia treatment received national media attention at the SFN conference. More than 100 media outlets, including the *Wall Street Journal* and the *Boston Globe*, reported on the finding that d-cycloserine, a tuberculosis drug that binds to NMDA receptors in the amygdala, promotes fear extinction in people suffering from acrophobia when used in combination with virtual reality therapy. The research was led by Emory University's Mike Davis, Kerry Ressler, and Barbara Rothbaum, Ph.Ds., of the Fear Collaboratory. In

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Our Growing Name Recognition



Elliott Albers

Increasing awareness of your name and products is one most challenging goals for any large organization. This fall, the CBN greatly enhanced its name recognition through its participation in the Society for Neuroscience conference and the Georgia Life Sciences Summit.

In November, more than 80 CBN scientists, graduate and post-doctoral students presented research at the SFN conference in New Orleans. The CBN's acrophobia treatment, developed by Mike Davis, Kerry Ressler, and Barbara Rothbaum, attracted significant national media attention at the conference. *CNN Headline News* later interviewed Mike about the research. In addition, CBN Educators Laura Carruth, Kyle Frantz, Melissa Demetrikopoulos, John Redmond, and Lee Morris were selected from a competitive pool to lead two hands-on neuroscience teaching workshops that were attended by more than 50 teachers and scientists.

In an effort to introduce our programs to the Georgia biotechnology community, the CBN took part in the Georgia Life Sciences Summit held in September at the World Congress Center. The venue, which served as the debut for a multipurpose 8 ft. x 10 ft. CBN exhibit, provided an opportunity for us to promote our research programs to potential industry partners who may be interested in working with us to leverage our findings into commercial applications.

As we enter year five, I have no doubt that we have developed model research and education programs that will make us a leading international center for behavioral neuroscience. The reputation of these programs has already established the CBN as a major player in the scientific community. Our growing participation in events such as the SFN conference and the Georgia Life Sciences Summit will ensure others know about us well.

—Elliott Albers, CBN director ■



Against the backdrop of the new CBN exhibit, Interim Co-Director for Research Kim Huhman discusses the CBN's research accomplishments with Tom Callaway, M.D., of Atlanta's Life Science Partner, Inc.

New CBN Faculty

JOANNE CHU, Ph.D., assistant professor of biology at Spelman College, studies the neuroendocrine and neurochemical control of social behavior in amphibians. She is interested in examining the functional neuroanatomy underlying auditory communication in *Hyla cinerea*, the green tree frog, especially as it relates to dopaminergic pathways. She also wants to determine the neuroendocrine control of social behavior in both male and female green tree frogs. Chu is a member of the Reproduction and Affiliation Collaboratories. She also co-chairs the Undergraduate Education Committee.



Joanne Chu and a green tree frog.

ANNE MURPHY, Ph.D., associate professor of biology at Georgia State University, studies the neural mechanisms underlying sex differences in pain sensitivity, and the impact of neonatal pain experiences on sensory development. Among her findings in studies of chronic inflammatory pain, Murphy has found that the effective dose of morphine for females is nearly four times higher than that for males. Murphy's research also focuses on the primary neural circuits underlying male and female reproductive behaviors. She is working with the Affiliation and Reproduction Collaboratories. ■



Anne Murphy

Educators Lead 'Hands-On Neuroscience' Workshops at SFN

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February 2004, Davis' fear research will be featured on the Canadian Broadcasting Corporation's program "Nature of Things."

Also at the SFN conference, CBN Graduate Scholar John Pulliman was recognized as a new predoctoral fellow in the American Psychological Association-Diversity Program in Neuroscience. Pulliman, who is a third-year student in the neuroscience program at Emory University, also presented a poster at the 15th Annual National Institute of Mental Health-Funded Diversity in Neuroscience in Neuroscience Fellowship Programs Poster Session and Awards Ceremony.

In addition to poster presentations from every collaboratory, CBN Educators Laura Carruth, Kyle Frantz, Melissa Demitrikopoulos,

John Redmond, and Lee Morris, Ph.Ds., presented two "Hands-On Neuroscience" workshops that were attended by some 50 teachers and students. The workshops included demonstrations of neurotransmission and discussions of gender differences in problem-solving performance.

Demitrikopoulos moderated a Brain Awareness Week Campaign meeting where representatives from the Dana Foundation, International Brain Research Organization, and the National Institutes of Health discussed ideas for strengthening worldwide brain awareness and the importance of partnerships to the effort. ■



photo by Kelly Powell

CBN post-doc Michael Black, who works in the laboratory of Georgia State University's Matt Grober of the Reproduction, Aggression, and Affiliation Collaboratories, explains his poster describing research on the blue-banded goby, a sex-changing fish.

Undergraduate Neuroscience Course Catalog Unveiled

The Undergraduate Committee of the CBN Education Program has developed a comprehensive catalog of undergraduate neuroscience courses offerings at CBN member institutions.

The resource and the accompanying web site (<http://www.cbn-atl.org/education/classes>), which provides detailed course descriptions and downloadable syllabi, are designed to promote and facilitate the study of neuroscience and behavior for undergraduate students. The undergraduate committee hopes the resource will encourage undergraduates to cross-register for neuroscience classes outside their home institutions.

CBN faculty members are asked to distribute booklets to their students and submit updates to their course descriptions and syllabi to Poul Olson at biopeo@langate.gsu.edu. To obtain copies of the booklet, also contact Olson. ■

Viral Vectors Now Available

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have been transfected with the gene.

Larry Young, Ph.D., head of the Affiliation Collaboratory, uses viral vector technology to study the behavioral effects of the oxytocin receptor gene in the vole brain. Before the availability of free viral vectors through the Cellular Core, Young had to pay as much as \$10,000 for commercially developed viral vectors.

The Cellular Core, a partnership

between the CBN and the Emory Center for Neurodegenerative Disease, will provide CBN faculty free viral vectors and experimental design consultation on the use of the technology in their research. Investigators must provide complimentary DNA information for the gene under investigation or its sequence, and collaborate with Fang throughout the vector's development.

The Cellular Core will hold a workshop this spring on the use of viral vectors in behavioral neuroscience research.

For more information about the Cellular Core, contact Stacy Heilman, Ph.D., in the Emory Center for Neurodegenerative Disease, via e-mail at sheilma@emory.edu or call 404-727-4927. ■

CBN
Synapse

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