

THE SECRET LIFE OF THE BRAIN

A FIVE-PART DOCUMENTARY PREMIERING ON PBS

Winter 2002

Outreach Toolkit

THE SECRET LIFE OF THE BRAIN is a co-production of David Grubin Productions, Inc., and Thirteen/WNET New York in association with Docstar.



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thirteen
WNET NEW YORK



www.thirteen.org

THE SECRET LIFE OF THE BRAIN

CONTENTS

Documentary Series	1 A, B, C
Outreach	2
Outreach Partners	3 A, B, C
Resources	4
Print Materials	5
Online	6
Publicity	7
Action Ideas	8 A, B, C, D, E
Community Awards for Public Television Stations	9 A
Request for Proposal for Community Awards	9 B
Thirteen/WNET New York Contact Information	10

DOCUMENTARY SERIES

THE SECRET LIFE OF THE BRAIN reveals the fascinating processes involved in brain development across a lifetime. The five-part series, which will premiere nationally on PBS in winter 2002, informs viewers of exciting new information in the brain sciences, introduces the foremost researchers in the field, and utilizes dynamic visual imagery and compelling human stories to help a general audience understand otherwise difficult scientific concepts.

Program 1

The Baby's Brain: Wider than the Sky examines how the brain builds itself from conception through the first year of life. The mystery begins in the womb - only four weeks into gestation the first brain cells, the neurons, are already forming at an astonishing rate: 500,000 every minute. Billions of brain cells will forge links with billions of other brain cells and eventually there will be trillions and trillions of connections between cells, pulsing with electricity. Eventually, every cell will find its place; every link between cells will be carefully organized. How does it get this way? Neurobiologists Susan McConnell and Carla Shatz are working to find out by studying the intricate relationship between genes and the environment on development.

What happens if this carefully orchestrated process is interrupted? How vulnerable is the brain to an altered environment? Ten-day-old Elizabeth, born almost three months premature, is part of a study by developmental psychologist Heidelise Als. Als wants to know if the difficulties preemies have paying attention and learning later in life can be overcome by providing a special environment which mimics the womb. Will MRI images reveal that Elizabeth's brain has developed differently than other premature babies treated in the standard way?

The baby's brain is remarkably adaptable. But what happens if a baby is born with a cataract? Five-week-old Holly is rushed into surgery to remove a cataract which blocks light from entering her eye, threatening the normal development of vision in her brain. Holly's brain will get the visual stimulation it needs to wire normally, but only if the cataract is removed early.

A baby's brain is more open to the shaping hand of experience than at any time in life. In response to the demands of the world, the baby's brain sculpts itself.

Program 2

The Child's Brain: Syllable from Sound traces normal development from the toddler through puberty. During childhood, the brain is a magnificent engine for learning, and nowhere is learning more dramatic than in the way a child learns language. Most children learn to speak as easily as a bird learns to sing, but Michael B. did not. At five, by the time most children have mastered grammar, Michael has trouble speaking in complete sentences. How is his brain different from other children his age? What can Michael teach us about the brain's capacity for language? How does the brain make this great leap that is nothing short of a miracle?

In nearly all adults, the language center of the brain resides in the left hemisphere, but in children the brain is less specialized. Neuroscientists Helen Neville and Debbie Mills have demonstrated that until babies reach about a year old, they respond to language with their entire brains, but then, gradually, language shifts to the left hemisphere, driven by the acquisition of language itself.

DOCUMENTARY SERIES *continued*

If the left hemisphere becomes the language center for most adults, what happens if, during childhood, it is compromised by disease? At three, Michael R. began having brain seizures; by the time he was seven, he was having hundreds a day. Doctors diagnosed a rare brain disease for which the cure was radical: the left hemisphere of his brain would have to be surgically removed. Today, Michael bowls better than most children and races stock cars. Although he speaks with some difficulty, he understands well, even though the left side of his brain is missing. Dana Boatman, at Johns Hopkins University, has been testing Michael ever since his operation. She wants to know how the right side of his brain has compensated.

For most of us, while speaking is as natural and inevitable as walking, reading is more like a high wire balancing act, a performance by the brain that demands the most sophisticated coordination of many of its parts. But reading is a gift that not everyone receives. Millions, like seven year old Russell, are dyslexic, painfully unable to translate the squiggles on the page into sound and meaning, in spite of capable minds. At Georgetown University, Guinivere Eden is scanning the brains of dyslexic children to understand how their brains are different.

Program 3

The Teenage Brain: A World of Their Own

explores how the normal brain matures during the teenage years. New research has shown that during puberty, just as the brain begins teeming with hormones, the pre-frontal cortex, the center of reasoning and impulse control, is still a work in progress. For the first time, scientists can offer an explanation for what parents already know – adolescence is a time of roiling emotions and poor judgment. As the brain matures, teenagers also face special risks – from addictive drugs and alcohol that can hijack the brain to the chaos of

schizophrenia that strikes most often during adolescence.

Eighteen-year-old Courtney was a star student in high school when he was diagnosed with schizophrenia which crippled his ability to think, reason and feel. Dr. Nancy Andreasen at the University of Iowa is studying Courtney and other schizophrenics, searching to find which areas of the brain are affected and how to treat the debilitating symptoms. Courtney responds to new medications that do not cure the disease but allow him to function on a daily basis. Other teenagers, however, have a more resistant form of the disease. Fourteen-year-old Sabrina experienced her first psychotic break at age twelve and has been unable to find a medication that will control her psychotic symptoms.

Eighteen-year-old Jessie is struggling with a brain disorder of another kind, a self-inflicted disorder that can easily destroy a young life – drug addiction. She and other teenagers at the Caron Foundation, a treatment program in Eastern Pennsylvania, fight to beat their addictions while learning how drugs and alcohol have disrupted their brain chemistry to hijack behavior and desire. Dr. Anna Rose Childress at the University of Pennsylvania has identified where craving occurs in the brain and is now testing new medications that may control it.

Program 4

The Adult Brain: To Think By Feeling explores the critical interplay between reason and emotion and what happens when the balance between these two brain regions goes awry.

Marvin is an example of how emotion is intertwined with reason, and how damage to one influences the other. Marvin suffered a stroke that damaged a portion of his brain that cut him off from his ability to become aware of what he is

DOCUMENTARY SERIES **continued**

feeling. Today, he is a changed man: he has lost the ability to connect with other people, even his wife and children, and has difficulty making even simple, everyday decisions.

Marvin feels too little. Johnny feels too much. He suffers from post-traumatic stress disorder (PTSD), constantly reliving a car accident that happened a year ago. Day and night, memories of the accident send him into a panic, his heart racing. Fear is a normal, necessary emotion that protects us from danger, but in PTSD, fear and panic race out of control. Roger Pitman at Harvard is studying a drug that, if administered in time, might be able to prevent PTSD in victims of trauma.

For writer and psychologist Lauren Slater, an extreme sensitivity to anxiety and the stress it produces may help explain her life-long battle with depression. Lauren is part of a family line "riddled with mental illness." Added to that genetic predisposition was the abuse she suffered as a child. Charles Nemeroff at Emory University has shown that childhood abuse may actually alter the brain's ability to experience stress normally and may be a cause of depression later in life. There is no cure for depression, but scientists have developed effective medications that, especially in combination with talk therapy, can help people with depression live productive lives. Treated for depression twelve years ago, Lauren is now married and has a two-year-old daughter. She has drawn from her experiences as a patient and psychologist to write three highly acclaimed books. At a public health clinic in Boston, she counsels patients, using her own experience to help others suffering from depression.

Program 5

The Aging Brain: Through Many Lives. At the age of 95, Stanley Kunitz was named poet laureate of the United States. Still writing new poems, still reading to live audiences, he stands as an

inspiring example of the brain's ability to stay vital in the final years of our lives. The fifth hour of THE SECRET LIFE OF THE BRAIN draws on the latest discoveries of neuroscience to present a new view of how the brain ages.

The longstanding belief that we lose vast numbers of brain cells as we grow older turns out to be wrong. The normal aging process leaves most mental functions intact, and may even provide the brain with unique advantages that form the basis for wisdom. The aging brain is also far more resilient than was previously believed. At the University of Alabama at Birmingham, neuroscientist Edward Taub has developed an innovative form of therapy that helps stroke patients like Kent overcome years of paralysis by reviving the damaged circuits in their brains.

Overturing decades of dogma, scientists recently discovered that even into our seventies, our brains continue producing new neurons. Might it one day be possible to use these new neurons to replace those killed by disorders of the aging brain, like Parkinson's Disease? At Harvard Medical School, neurologist Jeffrey Macklis is trying to find out by trying to decipher the chemical signals that cause new neurons to be born.

In St. Louis, 69-year-old Chuck has just been told he has Alzheimer's Disease, which slowly destroys the brain's ability to remember and to think. But Chuck is not without hope because neuroscientists have made enormous progress in identifying the likely causes of the disease: microscopic molecules that can be lethal to the brain's neurons. In California, scientist Dale Schenk has just developed an experimental vaccine that may help the brain to defend itself. After decades of frustration, scientists believe they are finally closing in on the first effective treatments for this devastating disorder that afflicts millions of Americans. ■

OUTREACH

The national outreach for *THE SECRET LIFE OF THE BRAIN* is a two-pronged campaign to inspire high school students, as well as the adult audience, to learn more about the normal development and major disorders of the brain from conception through old age. The outreach includes a special focus on teens to generate excitement and enthusiasm for science among youth of all backgrounds, demonstrate the relevance of science to everyday lives, support curricula with related activities in informal settings, and encourage careers in science. For adults, the series, print materials, and online will be used in staff training and community health workshops to examine the ways the brain changes from birth to old age and to raise awareness about brain-related illness and disability.

THE SECRET LIFE OF THE BRAIN outreach will

- Support science curricula with related activities in informal settings.
 - Generate a greater interest in science and in pursuing science-related activities in a variety of settings among youth of all backgrounds.
 - Reach minority, disadvantaged, female, and other underserved youth populations to excite them about science, develop general science literacy, foster an understanding of the relationship of science to their everyday lives, and encourage the pursuit of careers in science.
 - Inform the audience of the place of science in a variety of aspects of contemporary life and of the critical role that knowledge in these areas plays in many social and political decisions to enable the audience to make responsible decisions about issues in their own lives.
 - Provide an adult audience with a background and understanding of basic principles of science and foster an excitement and enthusiasm for further exploration.
- Thirteen will facilitate the development of local outreach by
- Distributing to all PBS stations and community partners specially designed, easily adaptable outreach tools that will facilitate the creation of local outreach. These tools, in a one-sheet, easily reproducible format, will include episode highlights, suggested activity plans based on series content for adolescents and adults, resource lists, customizable templates, press releases, and media toolkits. These will be released on a periodic basis from July 2001 through winter 2002 and will be posted online at www.pbs.org/brain.
 - Producing two distinct online components: a companion site for the series with interactive features that allow users to explore topics in greater depth and an Online Outreach Center designed to support outreach planning. The Online Outreach Center will feature specially designed activity plans based on streaming video from the series, project updates, and turn-key tools for producing outreach, such as press releases, flyers, newsletter articles, and downloadable logo art. Log onto www.pbs.org/brain in July 2001.
 - Creating adult and adolescent print materials that expand and enhance the educational value of the broadcast.
 - Feeding specially edited excerpts from the series to public television stations. These excerpts will highlight specific themes and compelling stories that can be used as the basis for outreach or educational activities and promotion. Watch PBS Express for announcements of feed date. Community partners may obtain VHS copies of the excerpts from public television stations or from the national outreach coordinator.
 - Providing pass-through grants to public television stations to assist in energizing their local markets and establishing partnerships with local educational, health and community organizations, and the local affiliates of the national partner organizations. ■

OUTREACH PARTNERS

The following is a list of national organizations that have agreed to participate in the outreach for THE SECRET LIFE OF THE BRAIN on both the local and national levels. These Outreach Partners share an interest in the sciences and education, both formal and informal, and have a particular concern for reaching the underserved, especially minorities and women. Each organization has a unique perspective to offer and different means to address the topics, depending on their missions and constituencies. Call or email the contact person listed to get information about local chapters or key members who may collaborate with you on developing local outreach.

These Outreach Partners may act as

- resources for scientific information
- resources on educational practices and techniques
- resources on health, educational, or community service organizations
- liaisons between public television stations and people or organizations engaged in neuroscience and brain research
- partners in planning local events
- distributors of information about the series and outreach through their chapters' listserves, mailing lists, newsletters, and web sites

In preparation for contacting Partners, organizers should assess the needs of their own communities to determine who are the key people or organizations that can contribute to the planning process. These will vary by community. What are the successful informal science educational programs in your area? Can they act as liaisons in relating informal educational outcomes to school curricula by coordinating learning activities with classroom science teachers' lesson plans? Which agencies offer services unique to your community, to target audiences, or to disease-specific groups covered in the series? Who are the leaders in neuroscience and related fields who can speak to youth and act as role models to inspire interest in careers in the sciences? Do any businesses in your area offer programs for employees that address issues related to health? Are there parenting or Ready To Learn programs active in your community? Is your station or organization currently involved in any outreach or other programs related to science, neuroscience or the disorders and issues addressed in the series?

As broadcasters of THE SECRET LIFE OF THE BRAIN, public television stations are key to the success of this outreach campaign. Call or email the Outreach Contacts at Thirteen/WNET New York listed in the Contact Information section to be connected to your local public television station. ■

OUTREACH PARTNERS *continued***American Association for the Advancement of Science (AAAS)**

AAAS is the world's largest general science organization and publisher of the peer-reviewed journal *Science*. AAAS serves as an authoritative source for information on the latest developments in science and bridges gaps among scientists, policymakers and the public to advance science and science education. AAAS's mission is to further the work of scientists and facilitate cooperation among them, foster scientific freedom and responsibility, improve the effectiveness of science in the promotion of human welfare, advance education in science and increase the public's understanding and appreciation of the promise of scientific methods in human progress.

1200 New York Avenue, N.W.
Washington, DC 20005-3920

Contact: Maria Sosa, Project Director
Tel: 202.326.6670
www.aaas.org

Association for the Education of Teachers in Science (AETS)

AETS is an organization to promote leadership in, and support for those involved in, the professional development of teachers of science. AETS serves educators involved in the professional development of teachers of science, including science teacher educators, staff developers, college-level science instructors, education policymakers, instructional material developers, science supervisors/specialists/coordinators, lead/mentor teachers, and all others interested in promoting the development of teachers of science.

College of Education
Dept. of Early Childhood Education
Georgia State University
Atlanta, GA 30303

Contact: Molly Weinburgh, President
Tel: 404.651.2584
Fax: 404.651.1495
Email: mweinburgh@gsu.edu
www.aets.unr.edu/

Association of Science-Technology Centers, Inc. (ASTC)

ASTC is an organization of science centers and

museums dedicated to furthering the public understanding of science. ASTC encourages excellence and innovation in informal science learning by serving and linking its members worldwide and advancing their common goals. Through a variety of programs and services, ASTC provides professional development for the science center field, promotes best practices, supports effective communication, strengthens the position of science centers within the community at large, and fosters the creation of successful partnerships and collaborations.

1025 Vermont Avenue, N.W., Suite 500
Washington, DC 20005-3516

Contact: Anna Perez-Pelaez
Tel: 202.783.7200
Fax: 202.783.7207
Email: info@astc.org
www.astc.org

Association for Women in Science (AWIS)

With a network of 72 local chapters, the Association for Women in Science (AWIS), founded in 1971, is the largest multi-disciplinary science organization for women in the United States. The Association is dedicated to achieving gender equity and full participation for women in science, mathematics, engineering and technology. AWIS works toward accomplishing its goals through publishing, conducting complete studies and projects aimed at encouraging girls at a young age to begin studying the sciences, and by developing measures and mechanisms to meet the needs of women in the sciences at all levels of education and employment. AWIS's mentoring program is designed to encourage and retain undergraduate and graduate women in science and engineering. The program includes small group meetings, large workshops with prominent speakers, laboratory experience, and exposure to scientific conferences.

National Office
1200 New York Avenue, N.W., Suite 650
Washington, DC 20005

Contact: Catherine Didion, Executive Director
Tel: 202.326.8940
Fax: 202.326-8960
Email: awis@awis.org
www.awis.org

OUTREACH PARTNERS *continued***Boys & Girls Clubs of America**

Boys & Girls Clubs of America comprises a national network of 2,800 neighborhood-based facilities annually serving more than 3.5 million young people, primarily from disadvantaged circumstances. Known as "The Positive Place for Kids," Clubs provide guidance-oriented programs on a daily basis for children 6-18 years old, conducted by a full-time professional staff. Key programs emphasize character and leadership development, education and career development, health and life skills, the arts, and sports, fitness and recreation.

National Headquarters
1230 West Peachtree Street NW
Atlanta, GA 30309

Contact: Judith J. Carter, M.Ed.,
Senior Vice President, Program Services
Tel: 404.487.5700
www.bgca.org

Indians into Medicine (INMED)

INMED is a comprehensive program offering educational support for students from elementary through professional school levels. An important aspect of the program is the large concentration of Indian health career students, over 100 each year, who participate in INMED's academic year support program. Another 100 Indian students attend INMED's annual summer enrichment sessions at the junior high, high school and medical preparatory levels, which bolster participants' math and science backgrounds and introduce them to health careers. INMED also prepares students to enroll in nursing, clinical psychology, and other health programs. INMED support services include academic and personal support for college and professional students, and assistance with financial aid applications.

University of North Dakota School of Medicine
P.O. Box 9037
Grand Forks, ND 58202-9037

Contact: Eugene DeLorme, Director
Tel: 701.777.3037
Fax: 701.777.3277
www.med.und.nodak.edu/depts/inmed/home.htm

National Council of La Raza (NCLR)

The Washington, DC-based National Council of La Raza (NCLR) is the largest constituency-based national Hispanic organization in the U.S. and the leading Hispanic advocacy organization. NCLR's 250 affiliates are all non-profit, Hispanic-serving organizations in 38 states, the District of Columbia, and Puerto Rico. NCLR has developed its own bilingual math and science curriculum, Academia del Pueblo-Math and Science (ADP-MAS), for use in informal education settings, such as after-school programs.

1111 19th Street, N.W., Suite 1000
Washington, DC 20036

Contact: Monique Miller, Supplemental Education
Coordinator
Tel: 202.776-1756
Fax: 202.776-1792
www.nclr.org

Society for Neuroscience (SfN)

The Society for Neuroscience is the world's largest organization of scientists and physicians dedicated to analyzing the nervous system and its role in everything we do. The Society serves to bring together scientists of various backgrounds in order to facilitate the advance of research on the nervous system, which leads to a better understanding of how the brain works and new ways to treat nervous system disorders. The Society is also concerned with informing the general public about the progress and benefits of neuroscience research and promoting education in this field. Founded in 1970, the Society now has over 25,000 members from the U.S.A., Canada, and Mexico, and foreign members from many other countries in the world. More than 10,000 scientific reports, representing the latest research in the field, are presented at each of the Society's annual meetings. The Society publishes a major professional journal, *The Journal of Neuroscience*, as well as a number of publications for lay readers.

11 Dupont Circle, N.W., Suite 500
Washington, DC 20036

Contact: Executive Director
Tel: 202.462.6688
Email: info@sfn.org
www.sfn.org

RESOURCES

THE DANA ALLIANCE FOR BRAIN INITIATIVES

The Dana Alliance for Brain Initiatives is a nonprofit organization of more than 200 leading neuroscientists, including nine Nobel laureates. It was founded in 1992 at a scientific conference at Cold Spring Harbor, New York, sponsored by The Dana Foundation. Nobel laureate James D. Watson, Ph.D., invited thirty preeminent scientists to assess progress, refocus energy, and make a commitment to shape the many ongoing approaches to brain research into a strong, cohesive effort. The resulting Dana Alliance is committed to advancing education about the personal and public benefits of brain research and disseminating information on the brain to the public in an understandable and accessible fashion. The Alliance's goal is to bridge the gap of understanding between what is being accomplished in brain research and what the general public knows.

Every March The Dana Alliance coordinates Brain Awareness Week, a unique international partnership of over 1,300 scientific institutions, service and patient-advocacy groups, universities and teaching hospitals. These organizations work to expand public understanding of advances in brain research and of some of the brain's most intractable diseases and disorders. Their goal is to further understanding of how central the human brain is to every aspect of life and how important a healthy brain is to attaining our maximum potential. The next Brain Awareness Week is March 11-17, 2002.

Contact:

Scarlett Mattoli
Project Manager, Public Affairs

Press Office: Barbara Rich, Ed.D.
Director, Press Office and Internet

745 Fifth Avenue, Suite 700
New York, NY 10151
Tel: 212.223.4040
Fax: 212.317.8721

Online at www.dana.org:

Brainy Kids Online offers children, parents, and teachers a site with activities for younger children, puzzles, links to excellent educational resources about the brain, and lesson plan suggestions.

Dana BrainWeb is a service for patients, families, and caregivers of those with brain disorders or diseases. It offers links to the latest research, treatment options, support for families and caregivers, and sources of more information.

Periodicals in print and on the web site:

Brain in the News, a monthly tabloid reprinting articles from major newspapers about the brain and specific diseases and disorders.

BrainWork, a bi-monthly publication for the general public.

BrainWork This Week, a weekly report on the most interesting new research in brain science.

Special publications in print and on the web site:

Brain Connections: Your Source Guide to Information of Brain Diseases (also on the web) is a source guide to organizations offering information on brain diseases and disorders.

The Dana Brain Science Guide: Resources for Secondary and Post-Secondary Teachers and Students offers a basic introduction to brain science, its history, current understanding, new developments, and future directions.

Annual Progress Report on Brain Research: The update series outlines the yearly progress in research that has been made in the brain-related diseases and disorders.

Cerebrum: The Dana Forum on Brain Science (paid for subscription), a thought-provoking new journal of ideas, with articles, debates and reviews from the world's top neuroscientists and thinkers on subjects ranging from philosophy to physics. ■

PRINT MATERIALS

For THE SECRET LIFE OF THE BRAIN, Thirteen will create two sets of print materials, one targeted to teens, and the other to adults, representing ethnically and culturally diverse populations. These will extend the reach of THE SECRET LIFE OF THE BRAIN's broadcast; enhance viewers' understanding of neuroscience; and encourage learning more about how the sciences and clinical research impact lives. The materials will reflect the series structure and content; expand upon information offered in the series; provide resource lists; suggest relevant activities and offer engaging illustrations.

For adolescents, *The Brain: A User's Guide* will be packaged as easily reproducible individual pages for use by students, with separate facilitators' guidelines on using the materials in informal and formal science programs. The materials will help young people understand important brain- and science-related issues; contain information and suggested activities relating to the series; provide profiles of scientists with whom youth can identify; and give suggestions for exploring careers that involve science.

The Brain: A User's Guide for Adults will be designed for use in staff training, community health forums, and other informal educational programs. The theme of the *Guide* will be the brain's

overarching role in human development from birth to old age, as well as an examination of brain-related conditions of illness and disability. It will include five original essays, one for each program; overviews of brain development at life stages; exploration of relevant topics such as brain health, cravings; discussion questions and research projects; summaries of recent discoveries, important unanswered questions, controversies, and new technologies.

15,000 adolescent *Guides* will be distributed to public television stations, partner organizations, and formal educational venues. 15,000 adult *Guides* will also be available to public television stations and partner organizations. Both *Guides* will be available for downloading from the Online Outreach Center as PDF files.

The print materials will be available January 2002, free of charge to partner organizations and to individuals. Please write to: Brain Adult or Adolescent (select one) Guide, PO Box 249, Little Falls, New Jersey 07424-0245. If more than one copy of each is needed, send a letter with a detailed description of planned use to: Jennifer Toro, THIRTEEN/WNET, 450 West 33rd Street, New York, NY 10001. Log on to www.pbs.org/brain for excerpts from the *Guides* online. ■

ONLINE

www.pbs.org/brain

THE SECRET LIFE OF THE BRAIN Online will have two components: a companion site for the series and a separate site dedicated to outreach training and education. The sites will promote viewership of the series, as well as provide information on how to utilize the series and related resources for adult community education, for adolescent informal learning, and for generating an interest in careers in science and related fields.

THE SECRET LIFE OF THE BRAIN Online Outreach Center is an interactive, multimedia educational site with everything a busy outreach professional needs to design activities that effectively utilize all of the project resources—video, print, and web. The site includes turn-key tools for producing outreach, such as press releases, flyers, newsletter articles, and downloadable logo art. Specially designed activity plans based on streaming video from the series provide strategies for maximizing the usage of THE SECRET LIFE OF THE BRAIN in informal educational and communi-

ty settings. Regular project updates will keep public television stations and community partners informed of new developments and opportunities. The Online Outreach Center will be updated with tools, activity plans, and news on a regular basis starting in July 2001 through to broadcast in winter 2002. Log onto www.pbs.org/brain to join in.

THE SECRET LIFE OF THE BRAIN companion site will feature several multimedia, interactive areas dealing with general topics of brain science, such as a tour of brain anatomy and a visual explanation of brain scanning. The site will be media-rich and exciting enough for students but content-heavy for adults interested in exploring the brain. For each of the five episodes of the series, the web site will feature a closer look at an intriguing topic. The close-ups will give the user a chance to fully understand some of the more complicated aspects of brain science. The companion site will launch in December 2001 at www.pbs.org/brain. ■

PUBLICITY

Thirteen's Communications Group's comprehensive communications plan to launch the PBS broadcast of THE SECRET LIFE OF THE BRAIN will

- **build the largest possible audience for the series**
- **promote the program both on and off the television pages**
- **capitalize on David Grubin's reputation for excellence in documentary filmmaking and promote the quality programming presented by David Grubin Productions in partnership with Thirteen/WNET New York**

The publicity campaign for THE SECRET LIFE OF THE BRAIN will target broadcast media, wires and syndicates, monthly magazines, weekly and daily publications, consumer and special-interest magazines, and television book supplements.

A four-color press kit for THE SECRET LIFE OF THE BRAIN will include a press release, episode

descriptions, biographical information on producers, a feature and/or fact sheet, and black-and-white photos. The kit will be mailed to approximately 1,500 press nationwide. Screening cassettes of THE SECRET LIFE OF THE BRAIN will also be serviced to television critics and special-interest writers in the top 50 markets for review. A color mailing will be sent to TV book editors in the top 50 markets for cover consideration.

Thirteen's Communications Group and Station Relations department will update the PBS system with new information and alert stations about the preview feed. In addition, the Communications Group will service local market program information directors and program guide editors with press releases, features and photography to help with local promotion and secure placements.

Log on to www.pbs.org/brain for downloadable, easily customizable press materials. ■

ACTION IDEAS

The following is a selected list of ideas for activities and events that you can implement in your community prior to the premiere of the series and as follow-up activities after it airs. Activities have been designed to reach target audiences and meet the overall goals of the campaign—to increase viewership; encourage science-related activities through informal educational programs; inspire interest in careers in neuroscience and related fields; and relate science and brain research to everyday life and public policies.

These ideas are not mandates or prescriptions. They are meant to inspire creative thought about what can be done in your community. Log onto www.pbs.org/brain starting in July 2001 for more detailed activity plans based on streaming video from the series along with project updates, and turn-key tools for producing outreach, such as press releases, flyers, newsletter articles, and downloadable logo art.

How you shape your local outreach will, of course, depend on your community's priorities and resources, needs, size, and demographics. Think creatively about how to bring different types of groups together in the outreach events. Also consider partnering with other agencies engaged in these issues, particularly local affiliates of the Outreach Partners or organizations with which you have collaborated in the past or are currently working.

First, identify key organizations or individuals that are already involved in the field of neuroscience or subtopics in the series. For example, is there a university or medical school in your area? A senior center? Library? Afterschool youth program? Think about how you can connect this outreach with other projects that your station or organization may be involved with already, such as Ready To Learn or adult education. Identify organizations that work with the target audiences and groups concerned with the disorders covered in the series.

Suggestions for potential partners to consider:

- local affiliates/chapters of national health-related organizations
- professional associations and institutions engaged in neuroscience and related disorders
- local chapters of disease-specific support groups
- alcohol and drug addiction treatment groups
- mental health agencies and support groups
- educational institutions
- afterschool and other informal learning programs
- parent groups
- family-service organizations
- caregiver support groups
- senior centers
- veterans' organizations
- public libraries
- community centers
- civic organizations
- community leaders
- human resources departments of local businesses

Be sure to develop a promotion plan to attract publicity and attendance for your outreach activities. The affiliates of the Outreach Partners may be able to help with listserves, newsletters, mailing lists, and web postings. Utilize materials provided by Thirteen, such as the easily adaptable templates for flyers, press releases, announcements, etc. These will be sent out to public television stations and be posted online at www.pbs.org/brain on a regular basis from July 2001 through broadcast premiere in winter 2002. ■

ACTION IDEAS *continued***PARENTS' SCREENING/DISCUSSION
ON LANGUAGE DEVELOPMENT****Goals**

- Inform parents about brain and language development from the toddler years through puberty.
- Raise awareness of parents on milestones in language development.
- Provide information on assessment and resources if problems in language development are suspected.

Format

- Screen excerpts from Program 2, *The Child's Brain: Syllable from Sound*.
- Invite professionals involved in neuroscience, language development, and learning disabilities to discuss the implications of neuroscience research for language development.
- Allow time for participants to ask questions of the experts.

Participants

- Parents, guardians, caretakers, and teachers of children, from early childhood through puberty

Potential Partners

- Ready To Learn programs
- Child care centers
- Afterschool programs
- Pre-schools
- Elementary and middle schools

Venues

- Child care centers
- Afterschool programs
- Pre-schools, elementary, and middle schools
- Community centers

Additional Outreach Activities

- Develop a handout highlighting language development milestones and possible indications of delays or learning disabilities.
- Research assessment and treatment options in the community and educational system. Does socio-economic status have an effect on diagnosis and treatment? Why?
- Form ongoing groups to continue learning about language development and methods for dealing with language development delays and learning disabilities.

CAREER FAIR**Goals**

- Provide youth with information regarding careers in neuroscience and related fields, such as researcher, scientist, physician, nurse, imaging technician, rehabilitation therapist, science teacher, etc.
- Inform teens of the requirements for entering these fields.
- Inspire young people to enter neuroscience through role models for careers in science and related technologies.
- Inform youth of the contributions made to community well-being by those in science and related careers.

Format

- Prepare the class or group for this activity by having each teen select a career and research educational, training, and licensing requirements, as well as internship opportunities. What do people in each career do? What is the range of opportunities in each field? How does the field affect people's everyday lives? What information and help can professional organizations provide?
- Invite professionals from a range of neuroscience-related careers to speak with teens.
- The professionals can speak of their own personal experiences. What drew them to their

ACTION IDEAS *continued*

chosen careers? What were the obstacles? What have been the satisfactions? What are the realistic requirements for entering the field? How have their career endeavors made a difference?

- Demonstrate how teens and group facilitators can use *The Brain: A User's Guide* for adolescents and series web site, launching in December 2001 at www.pbs.org/brain, to explore this topic further.

Participants

- Teens, 14-17 years old

Potential Partners

- Association for Women in Science
- Association for the Education of Teachers in Science
- Association of Science-Technology Centers
- Boys & Girls Clubs of America
- Indians into Medicine
- National Council of La Raza
- American School Counselor Association
- American Counseling Association
- National Career Development Association (NCDA)

Venues

- Informal educational programs
- Middle and high schools

Additional Outreach Activities

- Recruit professionals to act as mentors to teens over a longer-term basis.
- Start "A Day in the Life..." job shadowing program in which teens can accompany a professional through an ordinary day on the job.
- Explore part-time job or internship opportunities in neuroscience and related fields.

SCREENING AND PANEL DISCUSSION**Goals**

- Raise awareness of the effects of aging on brain function.
- Inform participants about strategies for preserving mental functioning.
- Provide updates of new discoveries in the field of neuroscience as it relates to the aging brain, such as clinical research, Alzheimer's, stroke rehabilitation.
- Spotlight local agencies that offer services for aging and/or disabled populations.

Format

- Screen excerpts from Program 5, *The Aging Brain: Through Many Lives*.
- Invite professionals and experts on neuroscience to speak about new advances in neuroscience and our understanding of the aging brain. Invite local health care or social service agencies to describe resources for Alzheimer's care, stroke rehabilitation, etc.
- Invite participants to ask questions of the panelists and allow plenty of time for interaction.
- Introduce participants to *The Brain: A User's Guide for Adults* and web site at www.pbs.org/brain, and demonstrate how to utilize them for further exploration of these topics.
- Make available information on the different topics and services from the speakers and specialty organizations.

Participants

- Adults of all ages, particularly senior citizens

Potential Partners

- American Association for the Advancement of Science
- Society for Neuroscience

ACTION IDEAS *continued*

- Alzheimer's Association
- American Stroke Association
- Retirement centers
- Hospital Community Affairs departments

Venues

- Senior centers
- Community clubs and organizations
- Caregiver support groups

Additional Outreach Activities

- Research resources in the community for Alzheimer's and stroke rehabilitation.
- Form a "Brain Fitness" group to research and discuss strategies for maintaining healthy brain functioning throughout the life span. Which strategies can be applied as group activities?

WORKPLACE OUTREACH**Goals**

- Help employers recognize and respond to employees' needs related to the effects of various brain-related disorders throughout the life span, as they affect not only employees but employees' family members as well. For example, parents and grandparents may have a special interest in Program 2, *The Child's Brain: Syllable from Sound* which examines language development and disorders. Adults of all ages, particularly those with elderly parents, may be intrigued with Program 5, *The Aging Brain: Through Many Lives* which explores the resiliency of the brain as it ages and explores the prospects for rehabilitation and recovery when disorders, such as stroke and Alzheimer's, occur.
- Inform employees of essential information regarding the functioning of the brain to alert them to any warning signs of disorder.

Format

- Hold a series of five screenings of excerpts from THE SECRET LIFE OF THE BRAIN along with discussion groups. Each session would focus on one program of the series and the brain development and disorders covered in that episode. These may be held during lunch breaks or after work hours.
- Invite professionals and experts in the field of neuroscience and the disorders covered in the programs to lead the discussions on each session's featured topics.
- Utilize *The Brain: A User's Guide for Adults* and web site at www.pbs.org/brain to frame the conversations and expand upon the content.

Participants

- Adults

Potential Partners

- American Association for the Advancement of Science
- Society for Neuroscience
- Human Resource managers
- Local science museums
- Organizations specific to the developmental stage or disorder under consideration

Venue

- Workplace

Additional Outreach Activities

- Make available information on each topic from the speakers, specialty organizations, Thirteen's outreach materials, and adult *Guide*. Check out THE SECRET LIFE OF THE BRAIN web site, available at www.pbs.org/brain starting July 2001, for additional, frequently updated information, resources and activities.

ACTION IDEAS *continued*

- Inform employees of services available through Employee Assistance or similar workplace programs.
- Give information and contacts for local programs that offer assistance and/or information on the disorders featured on the programs.
- Promote training of supervisory personnel in how to offer support and referral of employees to appropriate resources when needed.
- Start ongoing lunchtime discussion groups, using the adult print materials and the BRAIN web site as guides. A number of groups can be formed, each focused on a different topic.
- Partner with local natural history museums or exhibition centers to present screenings, discussions, and special hands-on projects and exhibits to youth. Include a quiz show format competition based on knowledge about the brain and neuroscience.
- Invite representatives from alcoholism and addiction groups to speak to parents' groups about the adolescent brain and addiction.
- Collaborate with a mental health agency to co-host a screening and discussion for teen and parent groups about depression and schizophrenia, which often first manifest in adolescence.

MORE OUTREACH SUGGESTIONS

Log onto www.pbs.org/brain for more outreach ideas, activity plans, and promotional tools starting in July 2001.

- Organize "train the trainer" workshops to teach leaders and trainers in informal educational settings, disease support groups, community centers, and senior centers how to use the series with their groups. Utilize *The Brain: A User's Guide for Adults*; outreach materials updates including resources and suggested activities; series clip reel; and web site featuring exciting graphics illustrating the brain in action.
- Host a screening and workshop for parents and guardians using Program 1 to focus on developmental milestones from infancy through the toddler years. Develop workshops for parents led by professionals with expertise in the fields of neuroscience, child development, or preschool education. How can parents optimize their parenting skills to foster healthy brain development? What resources are available for assessment and treatment if problems are suspected?
- Hold science fairs focusing on neuroscience through afterschool programs for teens. Enlist the support and sponsorship of a local health organization, such as a hospital or rehabilitation center. Include a special contest based on "Brain Teaser" quizzes and puzzles.
- Reach out to your general audience by joining with your local library to hold screenings and discussions on each program of the series and its content. Offer a reading list on any of the topics featured and the adult *Guide*. Distribute tune-in flyers.
- Join with disease-specific groups, such as those involved with Alzheimer's, stroke, or mental illness, to host screenings of the series' pertinent episodes and discussions. The experts can provide information regarding the latest research, prevention, warning signs, recovery or rehabilitation, and caregiving.
- Work with nursing homes and other long-term care facilities to promote viewing of the series and arrange discussions afterward with patients' families and administrators.
- Develop an intergenerational discussion of the aging brain through your local faith communities.
- Hold a screening and forum with local community leaders regarding the implications of the latest brain research on understanding various disorders, such as alcohol and drug addiction, and the implications of such findings for public policy on treatment.
- Download templates from THE SECRET LIFE OF THE BRAIN web site at www.pbs.org/brain and customize flyers and press releases with local tune-in information. Send to local press, educational, faith group, social service, health and disease-specific organizations. ■

COMMUNITY AWARDS

**COMMUNITY AWARDS FOR
PUBLIC TELEVISION STATIONS**

In order to stimulate the development of effective outreach on the local level for **THE SECRET LIFE OF THE BRAIN, grants of up to \$2,500.00 will be awarded on a competitive basis to public television stations. This funding will be awarded to assure that the financial resources are available at the local level for audience development and educational outreach.**

Goals of outreach are:

- to build viewership for the series
- to inspire interest in the process of scientific inquiry and new developments in neuroscience among adults and, particularly, among underserved adolescents in informal learning settings
- encourage teens, especially minorities and girls, to consider careers in science
- raise awareness about the impact science has on our daily lives

Goals of the community awards are:

- to promote viewership of the series
- to reach target audiences: adolescents, with a focus on the underserved, minorities, and girls; adults through workplace outreach and community health workshops
- to promote utilization of the series, web site, Online Outreach Center, and print materials for formal or informal learning
- to train educators or group leaders how to utilize the series, web site and the Online Outreach Center, outreach and print materials

Requirements:

- Grantee stations must promote the series; the Online Outreach Center, scheduled to launch in July 2001; and the series web site, slated to launch in December 2001, to target groups within their markets
- Grantee stations must partner with at least one educational, health, or community group to design and implement outreach that meets the above goals
- Grantee stations must provide Thirteen/WNET with an assessment of the project based on the stated goals

RFPs must be received by July 31, 2001.



THE SECRET LIFE OF THE
B R A I N

COMMUNITY AWARDS **continued**

REQUEST FOR PROPOSAL (RFP)

Name _____ Position _____

Station _____

Address _____

Phone _____ Fax _____ Email _____

1. Project Goal(s) _____

2. Plan of Action _____

3. Partners _____

4. Budget _____

(Attach separate sheet if necessary.)

Grants of up to \$2,500 will be awarded.

Deadline: July 31, 2001

Mail, Email, or Fax to:

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