

# Parkinson's Patients Support Groups, Inc.

P. O. Box 60188, Sunnyvale, CA 94088 408.542.5610 [www.ppsg.org](http://www.ppsg.org)

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## Mouse Nose Nerve Cells Mature After Birth, Allowing Bonding, Recognition with Mother

**ScienceDaily** (Mar. 13, 2011)

For rodent pups, bonding with mom isn't hard-wired in the womb. It develops over the first few weeks of life, which is achieved by their maturing sense of smell, possibly allowing these mammals a survival advantage by learning to identify mother, siblings, and home.

Blending electrophysiological, biochemical, and behavioral experiments, Minghong Ma, PhD, an associate Professor of Neuroscience at the University of Pennsylvania, School of Medicine, led a study published in a recent issue of the *Journal of Neuroscience*. With students Anderson Lee and Jiwei He, she demonstrated that neurons in the noses of mice mature after birth.

Using patch-clamping -- a technique that measures electrical signals at the cellular level -- Ma's team found that between birth and day 30 of development, normal neurons become six times more sensitive to their siblings' scent, in this case, a fragrance called lylal. In addition, the mice transition from a relative indiscriminate response to different odors to being highly attuned to one specific smell. They also respond to that specific odor with a faster speed over time.

The **olfactory marker protein (OMP)** likely mediates this developmental maturation. In olfactory sensory neurons lacking OMPs, response fails to speed up over 30 days as compared to normal neurons. The authors suggest this could be due to altered intracellular communication, since loss of the protein is associated with decreased phosphorylation of an associated enzyme called

adenylate cyclase, a key player in the chemical signaling underlying the sense of smell. The team also used a novel behavioral assay to illustrate one consequence of mistakes in this cellular maturation process. Normal mouse pups, given the choice between their mother and an unrelated, lactating female, will choose to huddle with or suckle their mother 78 percent of the time. But in the absence of OMP, newborn mice fail to make that distinction.

According to Ma, the maturation of olfaction in early development could offer animals that need nursing and care for a long time before maturing (altricial species, including some mammals) a survival advantage. Rather than being hard-wired at birth, Ma says, they learn to identify their surroundings and their family. "They actually learn to find their mother, home, and siblings, and to stay alive," she says. But whether the same is true of human infants, of course, remains an open question. One key question yet to be addressed, Ma says, is the mechanism underlying this olfactory tuning process. How, for instance, do the cells develop a faster response speed? How do they get so good at focusing on just one odorant to the exclusion of all others? And can this process be modulated by early experience? The answers to those questions, she says, could possibly provide tools to influence the bonding between mother and child in early development, and even promote social interactions in autistic children.

The article was funded by the National Institute on Deafness and Other Communication Disorders, National Institutes of Health.

Go to [www.ppsg.org](http://www.ppsg.org) for support group and exercise and therapy information

## Rodent of the Week: Good in mice, a drug for Parkinson's moves ahead

By Shari Roan, Los Angeles Times

March 11, 2011

A drug that could halt the progression of Parkinson's disease is successful in mice and is now being evaluated in human patients, researchers reported this week.

The drug is phenylbutyrate, which is already on the market as an orphan drug for treatment of infants with a rare genetic disorder called [urea cycle disorder](#). Research at the University of Colorado, School of Medicine shows that the medication turns on a gene that can protect dopamine neurons. It's the destruction of nerve cells that produce dopamine that leads to the symptoms of Parkinson's disease, such as loss of movement. The gene that's targeted, called DJ-1, is crucial in keeping brain cells healthy and functioning.

The gene was discovered in 2003. The Colorado researchers then began searching for a substance to turn on the gene. They identified phenylbutyrate and put it in the drinking water of mice that were genetically programmed to develop Parkinson's disease as they aged. The mice who received the drug had no decline in physical or mental function and their brains did not show evidence of Parkinson's disease.

"Drugs currently used to treat Parkinson's disease just treat symptoms; they do not stop the disease from getting worse," Dr. Curtis Freed, the lead author of the study, said in a news release. "We've now discovered that we can prevent the progression of the disease by turning on a protective gene in the brain."

The medication is being given to some patients in order to test its safety. So far, studies suggest it has to be given in large doses. The drug is also being tested for the treatment of [ALS \(Lou Gehrig's disease\)](#). The study was published in the [Journal of Biological Chemistry](#).

This article was forwarded by Charmaine Eng.

## Stress and Anxiety

Stress can come from any situation or thought that makes you feel frustrated, angry, or anxious. What is stressful to one person is not necessarily stressful to another.

Anxiety is a feeling of apprehension, nervousness, or fear. The source of this uneasiness is not always known or recognized, which can add to the distress you feel.

### Considerations

Stress is a normal part of life. In small quantities, stress is helpful -- it can motivate you and help you be more productive.

However, too much stress, or a strong response to stress, is harmful. It can set you up for general poor health, as well as physical and psychological illnesses like infection, heart disease, and depression. Ongoing stress can lead to anxiety and unhealthy behaviors like overeating and abuse of alcohol or drugs.

Emotional states like [grief](#) or [depression](#), and health conditions like an overactive thyroid, low blood sugar, or heart attack can also cause stress-like symptoms.

Anxiety is often accompanied by physical symptoms, including:

- Abdominal pain (this may be the only symptom of anxiety, especially in a child)

- Diarrhea or frequent need to urinate

- Dizziness

- Dry mouth or difficulty swallowing

- [Headaches](#)

- Muscle tension

- Rapid breathing

- Rapid or irregular heart rate

- [Sweating](#)

- Twitching or [trembling](#)

Sometimes other symptoms occur with anxiety:

- Decreased concentration

- Fatigue

- Irritability, including loss of temper

Sexual problems

Sleeping difficulties, including nightmares

Anxiety may occur as part of an anxiety disorder. Anxiety disorders are a group of psychiatric conditions that involve excessive anxiety.

### Causes

Certain drugs, both recreational and medicinal, can lead to symptoms of anxiety due to either side effects or withdrawal from the drug. Such drugs include:

ADHD medications, especially amphetamines

Alcohol

Benzodiazepines (during withdrawal)

Bronchodilators (for asthma and certain other breathing disorders)

Caffeine

Cocaine

Cold remedies

Decongestants

Diet pills

Marijuana

Nicotine

Thyroid medications

A poor diet -- for example, low levels of [vitamin B12](#) -- can also contribute to stress or anxiety. In very rare cases, a tumor of the adrenal gland ([pheochromocytoma](#)) may cause anxiety or stress-like symptoms. The symptoms are caused by an overproduction of hormones responsible for the feelings of anxiety.

### Home Care

The most effective solution is to find and address the source of your stress or anxiety. This can be difficult, because the cause of the anxiety may not be conscious. A first step is to take an inventory of what you think might be making you "stressed out," trying to be as honest with yourself as possible:

What do you worry about most?

Is something constantly on your mind?

Is there something that you fear will happen?

Does anything in particular make you sad or depressed?

Keep a diary of the experiences and thoughts that seem to be related to your anxiety. Are your thoughts adding to your anxiety in these situations?

Then, find someone you trust (friend, family member, neighbor, clergy) who will listen to you. Often, just talking to a friend or loved one is all that you need to relieve anxiety. Most communities also have support groups and hotlines that can help. Social workers, psychologists, and psychiatrists can be very effective in helping you reduce anxiety through therapy or medication.

Also, find healthy lifestyle choices to help you cope with stress. For example:

Don't use nicotine, cocaine, or other recreational drugs.

Eat a well-balanced, healthy diet. Don't overeat.

Exercise regularly.

Find self-help books at your local library or bookstore.

Get enough sleep.

Learn and practice relaxation techniques like guided imagery, progressive muscle relaxation, yoga, tai chi, or meditation.

Limit caffeine and alcohol.

Take breaks from work. Make sure to balance fun activities with your responsibilities. Spend time with people you enjoy.

### When to Contact a Medical Professional

Your doctor can help you determine if your anxiety would be best evaluated and treated by a mental health care professional.

#### Call 911 if:

You have crushing chest pain, especially with shortness of breath, dizziness, or sweating. These symptoms might be caused by a heart attack, which can also cause feelings of anxiety.

You have thoughts of suicide.

[www.nlm.nih.gov/medlineplus/ency/article/003211.htm](http://www.nlm.nih.gov/medlineplus/ency/article/003211.htm)

## 5/14, Sunnyvale Parkinson's Walk

**Date:** May 14, 2011

**Time:** 9:00 am - 11:00 am

### Location

Washington Park  
Sunnyvale, CA

### Join the 8th Annual Sunnyvale

### Parkinson's Walk

Show your support for someone with Parkinson's.

Walk in memory of someone with PD, or to help someone with PD does the walk.

9am - Registration, meet at Washington Park  
in Sunnyvale (on McKinley Ave. by the picnic area)

9:30am - Begin 4.2 mile walk

10am - Begin 1.8 mile walk

For walker registration form, go to  
[www.ppsg.org/events](http://www.ppsg.org/events). Prizes are awarded for the  
top fundraisers!

Proceeds support:

American Parkinson's Disease Association

National Parkinson Foundation

Parkinson's Action Network

Parkinson's Disease Foundation

The Michael J. Fox Foundation for Parkinson's  
Research

The Parkinson's Alliance

The Parkinson's Institute

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**Educating yourself about alternative medicine helps you determine whether a treatment is worth exploring. These tips will help you assess the claims.**

### By Mayo Clinic staff

Alternative medicine practices are those not typically used in conventional medicine. **When alternative practices are used with conventional therapies, it's called complementary medicine. Together, these treatments are referred to as complementary and alternative medicine (CAM).** Complementary and alternative medicine treatments, such as herbal remedies and acupuncture, have become more popular as people seek greater control of their own health. But while they do give you more options, these treatments haven't always proved safe or effective.

When considering an alternative medicine treatment, be a savvy consumer. Be open-minded yet skeptical. Learn about the potential benefits and risks. Gather information from a variety of sources and evaluate the information carefully. Assess the credentials of alternative medicine practitioners. And be sure to talk with your conventional doctor before trying any treatment — especially if you take medications or have chronic health problems.

### **Avoid Internet misinformation: Check the three D's**

Although the Internet offers an ideal way to discover the latest in alternative medicine treatments, it is also one of the greatest sources of misinformation. To weed out the good information from the bad, use the three D's:

**Dates.** Check the creation or update date for each article. If you don't see a date, don't assume the article is recent. Older material may be outdated and not include recent findings, such as newly discovered side effects or advances in the field.

**Documentation.** Check sources. Are qualified health professionals creating and reviewing the information? Is advertising clearly identified? Look for the logo from the Health on the Net (HON) Foundation, which means that the site follows HON's principles for reliability and credibility of information.

**Double-check.** Visit several health sites and compare the information they offer. If you can't find supporting evidence to back up the claims of a CAM product, be skeptical. And before you follow any advice you read on the Internet, check with your conventional doctor for guidance.

### **Look for solid scientific studies**

When researching CAM treatments, do as doctors do. Look for the high-quality clinical studies. These large, controlled and randomized trials are published in peer-reviewed journals — journals that only publish articles reviewed by independent experts. The results of these studies are more likely to be solid. Be cautious about studies in animals, laboratory studies or studies that include only a small number of people. Their results may or may not hold up when tested in larger clinical trials. Finally, remember that sound health advice is generally based on a body of research, not a single study.

Although scientific studies are the best way to evaluate whether a treatment is safe and effective, it isn't always possible to find good studies about alternative medicine practices. Keep in mind that a lack of evidence doesn't necessarily mean a treatment doesn't work — but it does mean it hasn't been proved. As always, don't hesitate to talk with your regular doctor if you have questions.

### **Evaluate dietary supplements: 'Natural' doesn't always mean safe**

Herbal remedies, vitamins and minerals, considered dietary supplements by the Food and Drug Administration, don't undergo the same rigorous testing and regulation as over-the-counter and prescription medications. For example, manufacturers aren't required to get FDA approval before producing or selling dietary supplements. Yet, some of these substances — including products labeled as "natural" — have drug-like effects that can be dangerous. Even some vitamins and minerals can cause problems when taken in excessive amounts. So it's important to do your homework and investigate potential benefits and side effects of dietary supplements. Play it safe with these tips:

**Talk to your doctor before taking a dietary supplement.** This is especially important if you are pregnant, nursing a baby, or if you

have a chronic medical condition such as diabetes or heart disease.

**Avoid drug interactions.** Prescription and over-the-counter medications can interact with certain dietary supplements. For example, the anticoagulant Coumadin (a prescription medication), ginkgo (an herbal supplement) and Vitamin E can all thin the blood. Taking these products together can increase your risk of internal bleeding or other problems.

**Before surgery, tell your doctor about supplements you take.** Some supplements can cause problems during surgery, such as changes in heart rate or blood pressure or increased bleeding. You may need to stop taking these supplements at least two to three weeks before your procedure.

<http://www.mayoclinic.com/health/alternative-medicine/SA00078/NSECTIONGROUP=2>

#### **A Note to Our Readers:**

**This newsletter is for informational purposes only. Readers are advised to consult a trained medical professional before acting on any of the information in this newsletter.** The fact that a particular treatment, nutrient, herb, or supplement is discussed in this newsletter in connection with any illness or condition does not necessarily mean that it is safe and appropriate for everyone or that the editor or PPSG recommends its use for that illness or any condition.

### **PPSG Board Meetings**

You are welcome to drop by our board meetings and share ideas with us! We meet on the **3rd Monday** of the month between **1:00 and 3:00 PM** at the Parkinson's Institute, at 675 Almanor Avenue, Sunnyvale, CA 94085. To confirm meeting dates and time, please call us at **408.542.5610**. If you are planning to attend, please call Charmaine Eng at 408.723.8116 (dial \*82 before the number).

## Upcoming Events

**April 6, 2011 Wednesday**

**12:00 noon - 1:00 pm**

**WEBINAR**

**What if you could improve your "on" time without dyskinesia and reduce your medications?**

Speaker: William Marks, MD, Associate Professor of Neurology, University of California, San Francisco.

Join physician expert Dr. William Marks for a live web seminar for people with Parkinson's disease. You'll learn how Medtronic DBS Therapy may lead to a reduction in your medications and help you experience longer periods of good mobility without dyskinesia excessive and uncontrollable movements that can occur as a side effect of long-term use of some Parkinson's medications.

Participate online or via telephone for this free event.

Register at <http://www.achievedailyvictories.com>

**April 12, 2011 - Tuesday**

**10:00 AM - 11:00 AM**

**PD Expert Briefing: What's in the PD Pipeline? - WEBINAR**

Call 800.457.6676 for more information.

**April 12, 2011 - Tuesday**

**CAREGIVERS Treatment strategies and coping mechanisms for non-motor symptoms of PD  
1:30 pm - 3:30 pm**

The Parkinson's Institute and Clinical Center  
675 Almanor Avenue  
Sunnyvale, CA 94085

This is a free seminar for patients and their caregivers to receive education and support from the specially trained staff.

Call Gloria: **408-734-2800** to reserve a space

**May 5, 2011 - Thursday**

**Newly Diagnosed Patient Seminar**

**1:30 pm - 3:30 pm**

The Parkinson's Institute and Clinical Center  
675 Almanor Avenue, Sunnyvale, CA 94085

This is a free seminar for patients and their caregivers to receive education and support from the specially trained staff.

Call Gloria: **408-734-2800** to reserve a space

**May 24, 2011 - Tuesday**

**10:00 AM - 11:00 AM**

**PD Expert Briefing: Understanding Pain in Parkinson's - WEBINAR**

Call **800.457.6676** for more information.

**June 22, 2011 - Wednesday**

**Integrating Technology Into Treatment Seminar  
Medication Management, etc.**

**1:30 pm - 3:30 pm**

The Parkinson's Institute and Clinical Center  
675 Almanor Avenue  
Sunnyvale, CA 94085

A Free seminar for patients and their caregivers, to receive education and support from the specially trained staff.

Call Gloria: **408-734-2800** to reserve a space

**July 7, 2011 - Thursday**

**Newly Diagnosed Patient Seminar**

**1:30 pm - 3:30 pm**

The Parkinson's Institute and Clinical Center  
675 Almanor Avenue, Sunnyvale, CA 94085

This is a free seminar for patients and their caregivers to receive education and support from the specially trained staff.

Call Gloria: **408-734-2800** to reserve a space

**At This newsletter was assembled by the  
Morgan Center. Thank you!**

## Study: Gene therapy improves Parkinson's symptoms

### Associated Press

LONDON – An experimental treatment improved symptoms of Parkinson's disease in a mid-stage test, echoing results of an earlier pilot study.

The new research is the first to show positive results in a test of gene therapy against a sham operation in about three dozen U.S. Parkinson's patients.

After six months, those who got the gene therapy scored 23 percent better on a standard test to measure motor skills while those who got the sham operation did about 13 percent better.

"Gene therapy is no longer just a theory," said Michael Kaplitt, a neurosurgeon at New York-Presbyterian Hospital and Weill Cornell Medical Center, and one of the study authors. "We are getting much closer to a reality where this treatment can be offered to patients." Kaplitt said the results might spur similar treatments for other brain disorders like Alzheimer's, epilepsy and depression.

Kaplitt and colleagues tested the gene therapy on 16 people while 21 others received a sham surgery. The patients were aged 30 to 75 and all were taking Parkinson's medication.

In patients with Parkinson's disease, their brains get overactive after losing the normal supply of a chemical called GABA. The new treatment, gene therapy, works by inserting billions of copies of a gene into patients' brains that helps them produce more GABA.

For patients who got the gene therapy, doctors drilled a hole into their brains while they were still awake. Doctors then slipped in a virus engineered to bring in billions of copies of a gene to help the brain pump out more GABA. Patients who didn't get the gene therapy had holes drilled halfway into their skull — enough to trick them they were getting the therapy but apparently not enough to do any harm.

The study was published online Thursday in the journal, *Lancet Neurology*. It was paid for by Neurologix Inc., the biotechnology company that devised the therapy. Kaplitt is a company cofounder and holds stock options and many of the other authors reported ties to Neurologix and other pharmaceuticals.

Parkinson's disease is a degenerative brain illness that causes problems including tremors, rigidity and slow movements. It affects about one in every 500 people.

There is no cure, but some drugs help control symptoms.

"This is promising research but we need to know how long these benefits of gene therapy might last," said Michelle Gardner, research development manager at Parkinson's U.K. She was not linked to the study. "We don't know if there could be long-term consequences of introducing viruses into the brain."

In an accompanying commentary in the *Lancet*, Michael Hutchinson of New York University School of Medicine questioned whether gene therapy offers any advantages over deep brain stimulation, which has been used to treat Parkinson's disease for about a decade.

Walter Liskiewicz, a former oral surgeon in Michigan with the disease, could barely move before receiving the gene therapy in 2009 as part of the experiment.

Now, he plays jazz music and recently returned from a holiday in Brazil. "Everything was taken away from me and to just have them handed back is pretty special," he said. "It's like a miracle."

[http://news.yahoo.com/s/ap/20110317/ap\\_on\\_he\\_me/eu\\_med\\_parkinson\\_s\\_gene\\_therapy\\_1](http://news.yahoo.com/s/ap/20110317/ap_on_he_me/eu_med_parkinson_s_gene_therapy_1)

This article was forwarded by Curt Chadwick.

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For current lists on exercise classes, and support group information/activity calendars, please log on to [www.ppsg.org](http://www.ppsg.org). These lists are maintained by **Steven Russell**.

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**Mindfulness Meditation Training  
Changes Brain Structure in 8 Weeks**

*Mass. General-led study shows changes  
over time in areas associated with  
awareness, empathy, and stress*

Participating in an 8-week mindfulness meditation program appears to make measurable changes in brain regions associated with memory, sense of self, empathy and stress. In a study that appeared in the January 30 issue of *Psychiatry Research: Neuroimaging*, a team led by Massachusetts General Hospital (MGH) researchers report the results of their study, the first to document meditation-produced changes over time in the brain's grey matter.

(January 21, 2011)

[www.massgeneral.org/about/pressrelease.aspx?id=1329](http://www.massgeneral.org/about/pressrelease.aspx?id=1329)

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**New Board Member!**

Congratulations to **Pete von Scheven** who was recently nominated and approved by the Board of PPSG as our newest Board Member!

Pete has been assisting the PPSG Board in moving our operational data into **Salesforce.com** and will assist us with projects related to our community outreach including the webpage, email communications and beyond. Welcome, Pete!

For some information about Pete, please read page 8 of the PPSG Spring Quarterly newsletter by logging on to our website, [www.ppsg.org](http://www.ppsg.org).



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