Connecticut Parkinson's Working Group Newsletter

October 2002

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Jeff Lincoln conducted an interview with Roger B. in an earlier newsletter. The next two articles are follow up interviews; one before Roger had DBS surgery, the next afterward. Jeff and Roger will continue in future newsletters since the process is far from over and what they have to say is of interest to us all.

Stan

Deep Brain Stimulation – Before and after #2

Jeff Lincoln & Roger B. 29 March 2002

Jeff: What we are going to do R is to interview you before Deep Brain Stimulation (DBS) and then again after the procedure when you're going to be better. Just to refresh my memory, how long have you had PD?

Roger: 17 years

J: What did you first take for medication?

R: They first started me on Sinemet 25/250 4 times a day. And then they went from Sinemet to Pyrodil and subtracted one dose of Sinemet. Then Mirapex came out and we tried that, but the VA wouldn't supply it to me so we went to Permax and did away with Pyrodil. And then we went down to Mount Sinai 2 years ago. They put me on Comptan, and that straightened me out for a while. Actually for 2 years. At the last evaluation, they put me on… I was taking Comptan 4 times a day with 7 doses of medication. So they decided I should take a full dose of Comptan with each dose of Sinemet instead of a half with each. So I went to seven Comptan and they changed from Permax to Mirapex (J chuckles). And that didn't work too well. So I went from a half milligram of Mirapex to a full milligram. And I went from 7 doses of Comptan and Mirapex to 8 doses. I ended up taking my medication every 2 hours. In the morning actually every 1 1/2 hours in the morning.

J: You must have help remembering it because I have trouble remembering 3 times a da.

R: I have these pill cases, 7 days a day a week.

J: So, I gather from what you said last time, that there weren't too many more times they could change your medication.

R No, I'm at the maximum dose of Comptan and 1 milligram over on Mirapex. And Sinemet I'm taking 8 times a day so I have a full gram. I don't how much more I could take of that. To get through the day if I have something to do I cheat a little and take a couple extra 25/100 to keep me from locking up.

J: How did you first learn about Deep Brain Stimulation (DBS)?

R: I guess I saw it on TV like everyone else. And then I asked my doctor. He sent me down to Mt. Sinai. He watched the procedure down there a couple of years ago. He recommended them, so I went so I went down there 2 years ago.

J: Was that a screening interview or just for information?

R: Preliminary screening and that's when Comptan came out. Now I'm at the maximum dose of Comptan, 8 pills a day. And it doesn't seem to lengthen the effectiveness of my Sinemet. As a matter a fact, my Sinemet seems to be less effective all the time.
J: So the hope of DBS is that you will be able too cut back on some of the medicines eventually.
R: Yes, to cut back on medications and relieve me of some freezing. I can feel my feet going numb right now.
J: What makes you a candidate for DBS? What kind of questions did they ask you?
R: The final test is they want to see you off medication for 12 hours. So we went down there and they ran me through a whole battery of tests. Move your hands, touch your fingers, etc. The big test was to get me to walk after about 15 hours with no medication. My wife and her girlfriend weren't expecting me to be able to move. This guy got me to walk about 15 to 20 feet and back and that was about 15 hours into no medication. I didn't think I was going to make it, but I did, and it was amazing. Usually at that time I get down on my knees and crawl because it is faster than trying to get my legs to move.
J: So in this process of going down to Mt. Sinai, did you apply for DBS or did you make the decision with your doctor? How did you make the decision to go ahead with this.
R: You ask for evaluation. They evaluate you, and if you fit their criteria, they normally don't recommend you on the first evaluation. You usually go a second or third time. If I'd gone a couple of years ago, I probably wouldn't have been a candidate because I wasn't that far advanced. But I have all the symptoms; apathic I guess they call it.
J: What did they tell you about DBS? Did they give you any indication of what was going to happen or answer any questions that you had?
R: They told me they were going to do just the left side because my right side (body) is more advanced although my left side has caught up quite a bit. So they're going to do the side that's worse.
J: Are there different places they can put the electrodes?
R: The go into the subthalmic nucleus.
J: Which controls tremors, rigidity and gait?
R: Yeah that's the basic part they usually attack now. That's the surgery of choice now.
J: I read that the FDA only approved this procedure months ago. Is this a very new thing?
R: They have been doing it in a clinical trial for about 7 years. They've only had one mishap. The surgeon I have is one of the ones who developed 3D imaging to locate where they want to put the electrodes so that gives you a little confidence. I'm not sure how many operations they have done, but I'll probably ask what number I am.
J: If you're number 700, that's probably OK, but if you're number 4 that's probably not OK.
R: You don't want to be the first one on your block to have this surgery; wait a while. Now I'm getting to the point I have no choice.
J: When are you scheduled to have this procedure done?
R: April 22nd.
J: What do you have to do to prepare?
R: I've had my pre-admission physical and have seen a cardiologist this last week, and they will fax all the information to Mount Sinai for my admission. As of now I have no special instructions as far as what to do except to be there in the morning of the 22nd.
J: Have they told you what to expect of the operation?
R: They told me about the bracket and the screws. They bolt it onto your head. And then they take you down. They get an MRI so they can get a three-dimensional image of your brain to the bracket, and that gives them a starting point for where they want to drill the hole and what direction to take the probe through to get to the spot they want to get to.
J: Is it a fairly long operation?
R: They say seven hours.

J: Are you awake for most of this?
R: For about five and one-half hours. Eventually they put in a pacemaker.
J: At that point do they do some tuning to optimize it?
R: The first two weeks they have it in a minimal amount, hardly anything. And then after the two weeks, you have your first adjustment, and then they go from there. A friend in Arkansas told me there are 10,000 combinations.
J: I read that there are 4 electrodes, different voltages and all different combinations. They're going to tune you up like a Harley.
R: Maybe something smoother, like a Chevy. A Corvette maybe.
J: They do this operation on your left side so your right side gets better. Does your left side see any kind of benefits?
R: It will probably cut down on it. I can move my left leg a little better than my right. If my right leg gets better, my left leg should follow.
J: Is there a possibility that they would do the other side later on?
R: Yes
J: How long would they wait?
R: It could be a matter if months. After they do my adjustments, they will evaluate my left side to see if it would do to do the right side of my brain.
J: So you had to prove that you were a good candidate for the right side of your brain, and now you have to go back again and prove you are a good candidate for the left side?
R: Yes, but if I were worse, they could have decided to do both sides at one time.
J: What's the follow up do you have to do? Do you have to go back and see them?
R: For the first major adjustments, I'll have to go back. If my Doctor up here can get hold of the equipment to adjust it and the training, he could do the minor tweaking of it afterwards.
J: We have touched on this before, but let me ask you: what do you hope to get out of the DBS procedure?
R: I've got a friend in Arizona who had it done 5 years ago. He's on his second set of batteries, and on no medication at all now. He's working perfectly normally. That's the optimum. That's what everybody hopes for. I'd like my right side not to freeze unless I turn the battery to the pacemaker off.
J: Can you adjust the pacemaker?
R: Well, you can turn it on and off.
J: That's all my questions for now. What I'd like to do is to let you go through the process and then come see you again in a couple of months. Thanks for sharing your experiences with me.
R: I believe the more you know about this disease, the better off you are.

Deep Brain Stimulation – Before and After Interview #3

Jeff Lincoln & Roger B. 17 August 2002

Jeff: It's August 17th and I'm here to interview Roger B. after his Deep Brain Stimulation (DBS) operation last April. We're here to follow up with him and see how he's doing. Roger, where are you on the success scale?

Roger: The Doctor told my son that 2 out of 10 don't do very well with DBS. So far it seems that I'm closer to the 2 out of 10 then the 8 out of 10. It's served me well for my upper body, my hands and my face, but as far as my legs go for freezing and such, it hasn't gotten… they haven't found the right voltage and sequence yet.

J: You had the operation done and then waited a couple of weeks and then had the first adjustment done; So tell me about the adjusting process. What happened and what did you hope would happen?

R: The way the Doctor runs the process down at Mount Sinai is to go through all the parameters on one electrode which takes about 2 hours. He gets to where you start to feel the stimulation and where he feels

you're getting out of the range where you can stand it anymore. The first sequence we did, he got the upper limit so I couldn't talk anymore.

J: So he turned it up enough so you couldn't even do the normal functions that you could have done at the `start of the test?

R: Yeah. He had me counting from 1 to 10 and I'd count like this (stutters). That was where he hit the upper end of the parameters, the higher voltage and phase lengths. Then he went through the second electrode. All together the two electrodes took 2 hours. Then he set me in the middle of the first electrode, and sent me home.

J: How long before he saw you again?

R: About a month between sessions. In the second one he did electrodes 3 and 4. He went through all the parameters on them. He set me in the middle of 3. When I went back a month later, I told him I thought I was regressing. He had some students with him, and he showed them how he set the high and low thresholds. You have an adjustment curve where your brain adjusts to the stimulation. He found that the level he had the electrode set to was lower than the low threshold so I wasn't getting any stimulation at all. My Doctor is quite thorough. I've heard that some Doctors just set the parameters at the average, where it works on most people or something like that. They just drop it in there and say "See you in 6 months". My Doctor gets me walking starting when I've been off medication for 12 hours and no stimulation. He knows how to motivate you.

J: When do you go again?

R: September 10th for another try at it. When we first started, he was working electrode-to-case. Now he's working electrode-to-electrode to see if he can find another combination. He says that there's not much hope to come out better. The stimulation doesn't get down to my foot. The rigidity is the hardest thing to cure.

I've got a new device that does more than turn the DBS on and off. (Shows it to me).

J: It looks like a computer mouse with extra buttons and lights.

R: I'll show you how it works (turns DBS off and then on, jerks as it comes on) It can also check the battery levels.

J: Have you cut back on medications?

R: No, the DBS has to work better first.

J: Let's turn to the operation itself. Let's hear the gory details.

R: The worst part was the MRIs. You have to lie still for about 40 minutes. I couldn't get my head down onto the bed. After a while my head cocks to the side. The first MRI wasn't good enough for the surgeon. The second MRI was also bad. Then the put a pillow under my neck and taped the halo down. They took a third set of images. By that time, I had cramps in my back. Ii told them, "I hope you're done. I'm ready to leave!"

R: They drilled a hole just about top center of my skull. It's just a little hole, about 3/8 inch. My operation was done in record time, about 2 hours (not including the placement of the pacemaker). At this time they do another MRI and take the halo off. It hurts when they put the halo on or off. They go right down to the bone. The preparation for the operation is worse than the operation itself.

J: Did they implant the 4 electrodes separately?

R: No, they are in one unit. They try to place this inside the Subthalmic Nucleus, which is the size of a jellybean. I think 2 of my leads might be outside the jellybean. Two of my electrodes, when they were calibrating some of the responses were due to being in the "Yellow matter" of the brain. My Doctor is working mostly with electrode 1.

J: The object must be to get all four electrodes in the jellybean.

R: Well I guess you get better readings. My first electrode has outstanding separation between high and low thresholds. So that's the one he's working with mostly now. He's done electrode 1 to 2 and has a couple to go. That will be the next visit.

J: So in the future, there are more adjustments?

R: Yes, to try to get stimulation down to my legs.

J: You said your upper body, you really feel the difference? What about your handwriting?

R: The handwriting is not better, but if I concentrate, I can write a couple of words. I can write in block letters. I can't write in cursive. I did the circles for the doctor and that I did better. After the operation, my right arm is now better than the left.

J: You also said that you could walk in the middle of the night, so something must be better.

R: He's got me …. He's taught me to walk, don't worry about where you're going; concentrate on what you're doing. Big steps. You can beat Parkinson's with concentration.

J: I guess that's it for now. It looks like I should come back and see you in a while again. People are very interested in your progress. Once again, thanks…

Calendar of Upcoming Events

6 October 2002 APDA Walk-a-thon in CT, 9 a.m.-11 a.m. inside the Buckland Hills Mall, Manchester, CT. For information: 203.789.3936 or 1.888.400.2732

13 October 2002 Parkinson's Research Walk, 10 a.m., Penfield Pavillion, Fairfield, CT. Proceeds to benefit the Institute for Neurodegenerative Disorders.

CPWG Team for the Research Walk

This is your invitation to join our Connecticut Parkinson's Working Group team for the walkathon in Fairfield. As the brochure says - We can make a difference! Join our team and honor Dr. Ken Marek, raise money for Parkinson's research, and take a leisurely walk through Fairfield, or cheer the walkers on! If you can't come, that's OK. Send your contribution in to IND, or mail it to me and I will forward it for you. (But please make the check out to IND.) It will be a fun day!

Jackie Dorwin, Team Captain, Working Walkers, 203-453-2655

18 October 2002 Exercise and Parkinson's Disease Conference, 9 a.m-2 p.m. Lawrence & Memorial Hospital, 365 Montauk Avenue, New London, CT For more information: Heidi Cloutier Hooper 860.442.0711, ext 3059

19 October 2002 10 a.m. Connecticut Valley Hospital, Haviland Hall, 3rd floor, meeting of the Connecticut Parkinson's Working Group. Information: Jackie Dorwin 203.453.2655 or StanWertheimer 860.572.9965

The placebo effect in Parkinson's disease, by Maureen McHugh

Ms McHugh wrote the following for SPRING

The placebo effect has long been recognised in medicine and beneficial effects of treatments that lack any active component have been well documented in many diseases. The most familiar placebos are pharmacological (dummy medicines) but they can also be physical (e.g. manipulation) or psychological (e.g. a conversation). It is believed that some complementary therapies owe their success to a placebo effect, though this might be disputed by practising complementary therapists or those who rely on them. It has been assumed that the placebo response is not mediated directly through any physical or chemical effect of the treatment. Little however is known of the mechanisms underlying the placebo phenomenon. Adding to the debate, researchers at the University of Copenhagen recently cast doubt on placebos in general after they reviewed clinical trials involving over 7000 patients and over 40 diseases finding little evidence for significant placebo effect [1].

Research published recently in Science [2] (August 10th) and described by Roger Highfield in the Daily Telegraph ('Scientists show how the placebo effect works' August 10th 2001) however now provides evidence

that the placebo effect is real and is measurable at least in PWP. Workers at the University of British Columbia used positron emission tomography (PET) to examine levels of dopamine(DA) activity in the brains of PWP after they received a placebo (no drug) or treatment (apomorphine) as part of a placebo-controlled blinded study. Base levels of DA were examined after withdrawal of medication and apomorphine was administered at levels of 0.03 and 0.06 mg per kilogram of body weight. They also examined levels of DA in an open trial (apomorphine and no drug/no placebo) in which patients knew whether they had been given apomorphine and at what level.

The PET scan results remarkably indicated a placebo-induced release of (endogenous) DA within the patient's striatum, the part of the brain most badly affected in Parkinson's that was similar in magnitude or greater than the release observed in those patients receiving therapeutic doses of apomorphine or levodopa (in previous studies). While levels of DA increased in all those receiving the placebo, the release was found to be greater in those who perceived the placebo induced benefit than in those who did not. These findings were attributed to the involvement of DA in cognitive and behavioural functions in the brain, and with reward mechanisms in particular. Although DA is not normally ascribed this role in the nigrostriatal system and while there was no obvious reward involved in the trial, there was an anticipation of therapeutic benefit based on previous experiences, i.e. the people involved thought they were being given something to make them better. The link between perception of benefit and increased DA release they thought indicated a 'dose dependent' relationship between endogenous levels of DA and the magnitude of the placebo effect. In other words the greater the level of expectation, the greater the release of DA, this in turn leading to a greater perception of benefit.

Researchers concluded that the placebo effect was mediated by an increase in synaptic levels of DA, that this release was linked with the expectation of a reward and that the level of expectation determines the extent of the improvements experienced. Such expectation-linked DA release they thought might be a common phenomenon in any medical condition susceptible to the placebo effect. There was no evidence for any interaction between the drug and the placebo so that while patients would benefit from the active drug as well as the placebo, the effect was not synergistic. Their findings therefore did not compromise positive conclusions drawn from placebo-controlled studies.

The researchers concluded that the placebo effect in PD is powerful and is mediated through activation of the damaged nigrostriatal DArgic system.

For further information email scotland@spring.parkinsons.org.uk

References:

1. Asbjorn Hrobjartsson, and Peter C. Gotzsche, 2001.. Is the Placebo Powerless?— An Analysis of Clinical Trials Comparing Placebo with No Treatment. The New England Journal of Medicine, 344(21):1594

2. Raúl de la Fuente-Fernández, Thomas J. Ruth,Vesna Sossi, Michael Schulzer, Donald B. Calne and A. Jon Stoessl 2001. Expectation and DA Release: Mechanism of the Placebo Effect in Parkinson's Disease. Science 293(5532):1164-1165.

Vitamins and Parkinson's Disease (from NPF)

The role of vitamins in delaying the onset or halting the progression of PD remains unknown. A recent study revealed that multivitamin use was associated with a 3.2-year delay in the onset of PD in one group of people at risk for PD. Another study revealed that 40% of all PWP use one or more forms of alternative therapy, the most common being multivitamins. Although one study revealed no effect of vitamin E (an anti-oxidant) in delaying the onset of PD, work is on going on the potential role of vitamin C (an anti-oxidant) and co-enzyme Q-10 in delaying the onset or halting the progression of PD. There is also evidence, tentative, that folic acid may play a role in PD. Additional information and updates can be found on Ask the Parkinson Dietitian. The NPF while not endorsing any particular therapy, recognizes that our patients are using alternative therapies.

The CoQ10 used in much of the recent research, including the University of California at San Diego PD Phase II study (1200mg per day dose --to be published summer '02) was developed and manufactured by a company called Vitaline. Vitaline has studied the effects of CoQ10 on patients with PD and Huntington's disease for 20 years. Vitaline CoQ10 is a proprietary, patent-pending CoQ10 product, which has been designated an Orphan Drug for Huntington's Disease by the FDA. Vitaline CoQ10 is absorbed by the body, enters the bloodstream, reaches the mitochondria (the energy source of each cell), and crosses from the blood into the brain.

Vitaline recognizes the importance of CoQ10 supplementation in many patients with PD as well as the high cost. Consequently, Vitaline has established the Vitaline Formulary for PD Families, which allows PD families to order the Vitaline CoQ10 formula used in the Phase II PD study directly from Vitaline, at below-wholesale prices. To find out more about this opportunity, please visit www.vitalinecoq10.com . The NPF receives no money from Vitaline and has no financial interests in Vitaline.

Nature's Bounty the largest seller of multi-vitamins has recognized that some of the people who buy vitamins from them may have PD or have relatives and friends with PD. They also recognize the high cost. Consequently they have established a reasonable price for PD patients.

Sharing Gifts Jackie Dorwin

The telephone rang and I was pleased to hear the voice of a friend who runs the medical equipment program in town where, for a dollar, you can buy a piece of good, used, donated medical equipment such as crutches, raised toilet seats, canes, an occasional wheelchair. We met when my husband and I donated my mother-in-law's electric lift chair to this organization. My husband's secretary had given the chair to us after her mother-in-law passed away. She in turn had gotten it from someone else who had used it and no longer needed it. The chair was making the rounds, and being of service.

Today's caller had an electric scooter; did I know of anyone who could use it? She went on to say that the scooter belonged to a man who had been admitted to a nursing home and was no longer able to use it. His wife wanted to give it to someone who could use it, enjoy it. Give it to someone? Didn't she want payment for it? No, there was no charge. She wants someone to use it, that's all. Several phone calls later there was a new home for the scooter. The recipient was a PWP who promptly rode around the neighborhood with a big, glorious, contagious smile. What could be better than this?

Another phone call, that's what. This one was from a friend whose husband had recently passed away. The electric lift chair that he had found so comfortable was in very good condition and she wanted someone to be able to use it. Did I know of anyone? Within the week the chair was in a new home, giving comfort and relaxation to another PWP. Satisfaction! Another gift shared. After a pause to enjoy the feeling, I wondered about the people who had given us these expensive pieces of medical equipment - not your ordinary fare of crutches and toilet seats. They could take a sizable chunk out of someone's bankbook. Why didn't these people want to sell the items, have some extra money for themselves? I couldn't answer. I only know how I felt when we delivered Mom's chair to the lady who had arthritis and couldn't get out of a regular chair without assistance. She was thrilled. She was grateful. She was a bit more independent because of the chair. What more could I ask for?

Then came the third call. What is going on here? This call offered an electric wheelchair - free. It might need a battery in a few months, but right now it runs fine. This item was the Cadillac of the line, worth thousands. Don't you want to sell it? No, we just want to give it to someone who can use it. I was speechless. Generosity is not the word. Kindness is not the word. I don't know if there is a word. But there is a feeling. Actually, several feelings, all of them good and being shared without headlines: the feelings of the giver, of the receiver, of the person who lets us use their truck, of the teenager who provides some muscle to lift the lift chair, of the person who might say yes to the offer but says no because someone else might need it more, of

those who would like to give, but can only appreciate the story. Blessings given simply and received graciously. Kindness shared quietly and multiplied easily. Who could ask for more?

The Southeastern Connecticut Support Group/ Lawrence & Memorial Hospital Parkinson's Exercise Group - an opinion

Stan Wertheimer

I have been a member of the eponymous group since its inception in September 2000. Many people have been involved in its formation, but the driving force behind all that has happened is Kit Wyper. I could mention lots of names in different contexts, but that is not what I want to do here; some names will be mentioned which does not imply that others were not just as involved. However, Kit took a comment that PWP need to keep active, made at a 1999 support group meeting, and made it fly. She contacted the Boston University Center for Neurological Rehabilitation and Lawrence & Memorial Hospital, added huge amounts of energy and charm and the result in our highly successful exercise group. But that is not what I want to talk about either.

There were about 15 people when the group started, at all levels of ability, from wheelchair bound to seemingly without any noticeable dysfunction; we were predominantly male, perhaps 13 men and 2 women. We were given tests to evaluate our abilities before and after the eight-week sessions, meeting twice a week for 75 minutes. We were lead by four PTs and OTs, who were also needed to monitor those of us who had significant movement disorder. Attendance was almost 100 percent, much to the surprise of the leaders. We had a break of a week or two between sessions, and there was no charge, although several of us sent voluntary donations to the hospital.

Over the course of the next two years we lost some people due to relocation, loss of interest, and death. We also stopped being evaluated. We gained some people, mostly women, so that we are now about 50/50. The exercises have gotten slightly more strenuous, although they have never been what one would call demanding; the idea is to do reasonable stretching and weight training regularly, pushing a little harder as you are able. The consensus is that we are better off physically for coming to the group. We now have two or three regular leaders, one who has been there all the time, Diane. We also have two subgroups: both meet together to do the sitting exercises, while only one does the standing and moving exercises.

Now, the reason for all of this background, which is sketchy but sufficient, I think, is to talk about what we get from attending the group regularly. Of course, we get to stretch and lift some weights, do voice exercises, learn to breathe properly, and learn to relax. One would expect that from any PD exercise group. What are unexpected are the other benefits, which I expect were not anticipated by most, if not all, of us.

One of our members died; we got to know him better because he came to the sessions regularly. I looked forward to talking with him twice a week, and was grateful that we had the group to allow this contact. Another person had a DBS procedure. We all learned first hand what was involved, the pluses and minuses, and a meeting did not go by without our discussing his condition and keeping in touch. Another person found out about Perlmutter's glutathione treatment for PD via contact in the group; he started on them a few months ago and is feeling better already.

We pass on information about medication, new treatments, new doctors, new books, and just our own lives, with sincere interest from the members. We have become a community of people who care for one another and help each other in ways that have nothing to do with exercise. Attendance continues to be almost 100 percent. We all belong to the Southeastern Support Group; what has developed is a subgroup that one might call a super-support group. We are part of each other's lives in a special way that has positive effects much beyond keeping active.

I suppose we have all had the "group" experience in other places - I know I did when I belonged to a men's Morris dancing group (actually two different ones) and a Tai Chi group. I find that this exercise group is different. Perhaps it is because the stakes are higher, the people are not as busy since most are retired, and there is no competition involved. Or perhaps it is just a special group.

Environmental Triggers of PD **26 August 2002**

National Institute of Environmental Health Sciences (NIEHS) announces $20 million, three-center effort to pinpoint environmental triggers of PD. The NIEHS, a component of the National Institutes of Health, today announced five-year grants totaling $20 million for three centers to conduct research on the relationship between exposures to environmental agents and subsequent PD.

The announcement was made this morning at the PD Institute, in Sunnyvale, Calif., where one of the centers will be located. The other centers will be at Emory University, Atlanta, Ga., and the University of California at Los Angeles.

NIEHS Director Kenneth Olden, Ph.D., said in announcing the new funding, "Our best chance for finding successful treatments for persons suffering with PD is to understand more about what triggers the disease. Even better, this research may lead to ways to prevent PD in the first place."

A progressive disorder characterized by muscular rigidity and tremors, slow movement and impaired balance and coordination, PD affects between 1 and 1.5 million people in the U.S., with 50,000 new cases reported each year, NIH estimates.

Recent findings suggest that PD may result from a combination of a person's exposure to harmful environmental agents and the person's inherited susceptibility. The disease is marked by the death of cells in the brain that produce and release the neurotransmitter DA. Current drug therapies, which attempt to replace the lost DA, can relieve some symptoms but do not cure or slow the disease.

The directors of the new centers, the leadership of national patient advocacy groups and representatives of the California Congressional delegation were invited to participate in today's announcement and stay for a light lunch and an afternoon discussion of current research. [Reporters are also invited to remain after the announcement for lunch and the scientific reports.]

The three new centers will be located at:

* The PD Institute, Sunnyvale, Calif., with J. William Langston, M.D., as center director. (For further information call (408) 542-5632.) The center will examine risks associated with pesticides and heavy metals, possible protective effects of tobacco and caffeine, the underlying mechanisms of DA cell death, and genetically determined susceptibility traits for PD.
* Emory University, Atlanta, Ga., with J. Timothy Greenamyre, M.D., Ph.D., as center director. For further information call (404) 727-3727. The center will develop new cellular and animal models to study gene-environment interactions in the development of PD and will focus on how pesticides interact with the proteins that package DA within nerves, and the cellular machinery that degrades abnormal proteins.
* The University of California at Los Angeles, with Marie-Francoise Chesselet, M.D., Ph.D., as center director, (310) 267-1782 or (310) 206-7458. The center will study how variations in genes that regulate DA levels within neurons may play a role in the increased risk of PD associated with pesticides, using several model systems as well as human cells and DNA samples from two large and unique California studies of PD.

Dr. Olden said that the three centers will conduct their research independently but will also have the benefit of acting as a consortium, collaborating and taking advantage of each other's knowledge and expertise. He said, "We have some good clues about what environmental agents and genes may be important in PD. This new consortium should bring together the right mix of scientists so that these leads can be pursued quickly."

J. William Langston, MD., founder and CEO of the PD Institute, said, "This could be the final chapter of our search for the cause of PD. Under the auspices and funding of NIEHS, three major research institutes will collaborate to find the environmental and genetic origins of PD. Working together we can accelerate the pace of research with a dream team of multi-disciplinary experts."

Joan Samuelson, founder of the PD Action Network, said, "The environmental link provides major clues in unraveling PD remaining mysteries. The cure will be accelerated by this tremendous commitment of funding

and focused effort. That translates into less suffering for the million Americans with PD. We are filled with hope and gratitude by this endeavor."

Deborah W. Brooks, executive director of the Michael J. Fox Foundation for PD Research, said, "The NIEHS and Director Olden have designed a creative approach to targeting this exciting area of PD research. Structuring collaboration among these three strong multidisciplinary teams should surely accelerate progress in what we continue to believe is a winnable war against PD."

Contact: Tom Hawkins hawkins@niehs.nih.gov 919-541-1402

New procedure 'may reverse Parkinson's disease'

Doctors have developed a pioneering surgical procedure, which could provide a breakthrough in the treatment of Parkinson's disease, it emerged today (April 2002). A team led by Dr Steven Gill, a consultant neurosurgeon at Frenchay Hospital in Bristol, believes they have discovered a way of reversing the deterioration of the brain and restore movement in-patients with the disease. The surgery, which involves the doctors pumping a growth factor called Glial derived neurotrophic factor into the brain, has so far been performed on five patients.

North Bristol Healthcare Trust, which runs Frenchay Hospital, said preliminary results showed all five patients experienced marked improvement in their symptoms following the surgery, with most noticing significant changes in their ability to talk and walk. This is the first time that such improvement in a chronic neurological disease has occurred following infusion of a growth factor.
If further trials are successful, the treatment could become more widely available in the next four to five years.

Dr Gill's team now believe they can reverse the degenerative effects of the disease by using GDNF - a growth factor essential to the development of the nerve cells which use a chemical called DA to transmit impulses from the brain to the muscles. In the procedure, catheters are implanted in the part of the brain of a Parkinson's sufferer, which controls movement and is deficient in DA. The catheters are in turn connected to pumps, which are filled with GDNF and continuously infuse the growth factor to this area of the brain.

The hospital trust stressed that the treatment was still in its infancy and multiple further trials were needed to assess its continuing safety and efficacy. However, if it does prove successful and safe, then it may become more widely available during the next four to five years.

At Frenchay hospital, Dr Gill worked with Peter Heywood, a consultant neurologist; Nik Patel, a fellow neurosurgeon; and Karen O'Sullivan, a Parkinson's disease specialist nurse.

David Brooks and Gary Hotton also assessed before and after treatment the patients, both neurologists at the Hammersmith Hospital. Clive Svendsen, who is a basic scientist involved in stem cell research at the University of Wisconsin, is also one of this study's collaborators.

John & Nancy Tedford write for the SPRING journal, where SPRING (Special Parkinson's Research Interest Group) is the official Special Interest Group for Medical Research, constituted within the Parkinson's Disease Society of UK.
http://spring.parkinsons.org.uk is its web address.

HIGH HOPES FOR NEOTROFIN by John Telford

Neotrofin, a drug being tested for its neuroprotective and neuroregenerative properties, now appears to be able to stimulate the production of neural stem cells. Last November at the 31st Annual Meeting of the Society for Neuroscience, in San Diego, California, the makers of the drug, NeoTherapeutics Inc, reported that when a single dose of Neotrofin was given to adult mice there was a measurable increase, within 24 hours, in the number of neural stem cells in their brains.

Neotrofin is a compound, which can cross the blood-brain barrier and seems to stimulate the genes, which produce what are known as neurotrophic factors. These are large proteins, which are involved in nerve growth and neural protection and regeneration.

Clinical trials of Neotrofin have been underway for some time in the treatment of Alzheimer's disease and the results are currently being analysed. Further trial programmes relating to stroke, spinal cord injury and early Parkinson's disease have commenced. The phase 2 study of Neotrofin in Parkinson's is being conducted at five US hospitals specializing in the treatment of Parkinson's disease and movement disorders. To date, twenty-eight patients have been enrolled in the study, which is expected to conclude by the year-end.

The neurotrophic factors are naturally present in the brain, but they are not normally there in sufficient concentrations to protect fully against the causes of neuron death in Parkinson's, nor to replace the damaged cells. Neotrofin appears to stimulate multiple genes to produce these factors in the higher concentrations required. The neuroprotective effect of Neotrofin is thought to be due to its stimulation of the production of Heme oxygenase 1, which has been shown to protect against oxidative stress, a key factor in neurodegeneration.

With the announcement that Neotrofin causes neural stem cell proliferation, hopes are raised that this will provide a non-controversial alternative to the use of embryonic stem cells. In one of the studies with mice an increase in the number of mature neurons was observed after six weeks, although not in a second study. It remains to be discovered, however, whether these cells can become DArgic and take up residence in the substantia nigra.

The trials will be looking out for any adverse side effects following the administration of this drug. None seems to have been reported yet. Since it is orally administered, it may be that stopping the treatment would also cause the genes producing the higher concentrations of neurotrophic factors to switch off again and so curtail any further adverse effects on the brain - unlike stem cell transplants, which are essentially irreversible.

source: http://www.neotherapeutics.com/neotrofin.html

Health & Wealth: stem cell debate in the U.S.A. by Nancy Telford

If PWP did not have such a stake in the results of stem cell research, they could regard the fascinating national struggles over this issue as just interesting economic and political data of the globalisation movement. Because of their economic importance, biotechnology companies may be even more powerful stakeholders in the final decision of the American government whether to allow federal funding for stem cell research. And if the Federal government doesn't take the regulatory responsibility for this ethically sensitive industry, will patents and commercialisation drive the agenda for research?

Now stem cell research is under scrutiny again by Congress - three important bills are being debated in the Senate at the moment. New hearings have arisen out of the passage in July last year of a Bill by the House of Representatives to ban Federal funding for all cloning research. Senator Brownback from Kansas has now brought this bill (S 1899)(Landreiu/Brownback Bill) to the Senate with additions which, in the words of a medical researcher, Dr Gerry Fischbach, who testified on 12 March on behalf of the American Association of Cell Biologists, " . . . include two provisions that would deprive American patients access to potential therapies for some of the most debilitating diseases. The first of these would impose criminal penalties and heavy fines on scientists who attempt to transplant the nucleus from a normal body cell into a human egg cell whose own nucleus had been removed."

The debate in Washington, as well as in the rest of the country, is in full swing again after the tragic events of 11 September. Also on that day, the National Academy of Sciences published a report advocating an extension of President Bush's compromise, delivered in August, which allowed only for the use of pre-existent stem cell lines in research. The NAS report was overshadowed by America's response to outside threats and, for several months, it was pushed aside as the hottest issue on the national political agenda.

Dr Paul Berg, Stanford University professor and Nobel prize winner for his work on DNA chemistry, brought to public notice a second criminalising addition: "... the bill enacts criminal penalties against doctors and patients who seek to access treatments developed in other countries using nuclear transplantation. Under this bill, physicians could not treat their sick patients with an effective treatment developed overseas using nuclear transplantation. Similarly, an American who travels to another nation to take advantage of a medical technology unavailable in the United States could be considered a criminal. If a cure or treatment for Parkinson's disease were developed in another country using nuclear transplantation, Americans would be alone in being unable to take advantage of that treatment. I cannot believe that the United States Senate would pass such legislation."

The battle for votes has been controversially magnified by a series of television adverts, which began in February, financed by religious anti-cloning groups, seeking to identify medical staff in white coats with anti-cloning views. Also in high profile was the appearance at Senate hearings by Christopher Reeve, the actor with a severe spinal cord injury, on his refusal to accept and come to terms with permanent disability, because he believes stem cell research holds the key to making him (and others) well. However the debate may soon be over. On 5 March the Washington Post reported that "Although the Senate is behind schedule, a cloning vote could come up by early April . . . So both sides are racing to influence undecided senators and the public."

Two negative signs for the other two bills, quickly drafted to outlaw reproductive cloning but allow stem cell research - one (S.1893) sponsored by Dianne Feinstein, Hillary Clinton and Edward Kennedy and the other (S.1758) by those firm friends of stem cell research, Senators Specter and Harkin. President Bush has said if the Senate passes the Landreiu/Brownback bill (S.1899) - the most restrictive one - he will sign it into law, indicating perhaps a hardening in his position since his August announcement. In March the President nominated Dr Elias Zerhouni, Dean of Johns Hopkins Medical School, to head the National Institute for Health, after, according to the Washington Post, assurances that he would support the administration's controversial limits on stem cell research and for a comprehensive ban on human cloning.

A positive sign for stem cell proponents is the extent to which the US scientific community is becoming worried they may lose their best researchers to other countries where scientists are in a position to work with old and new cell lines in therapeutic cloning research. The Washington Post reported (5 March 2002) that "The unusual public relations battle (i.e. the advertising campaign mentioned above) took on an air of added immediacy last week as Britain finalized a national policy allowing research on cloned and other human embryos and grant money began to flow. With embryo research poised to expand there, British officials spoke openly of the opportunity to draw American talent in 'a reverse brain drain' and perhaps overtake the United States in the hot new field of regenerative medicine." (Note: 'embryo' is being used in a very wide sense in the preceding extract).

Also in March, Reuters reported that Singapore might pass a law permitting its new biotech companies the freedom to use stem cell lines without difficulty. With three states in Australia already having restrictive laws, and with the national legislature perhaps planning even more restrictions, one Australian researcher left in March to live and work in Singapore. Dr Peter Mountford, chief executive of a Melbourne-based stem cell company, is moving to Britain to continue his research unhindered. This follows Californian doctor, Roger Pedersen, decamping to Cambridge last year to pursue his stem cell research. Possible losses to American science, should US law restrict research, have also been reported. The Junior Diabetes Research Foundation, a US-based patients' advocacy/medical coalition, has agreed to fund a $7.5m (£5m) research project by Swedes in Sweden through the Swedish government's Medical Research Council. Can we expect to see the Parkinson's Action Network, or a similar US patients' group, giving the PDS or the British Medical Research Council cash for research?

sources:

* http://www.senate.gov/ for hearings testimony.

* http://www.aaas.org/ for American Association for the Advancement of Science website: cell research and applications: scientific, ethical and policy issues.

CPWG News

A lot has been going on with our group in the past few months. We have settled on a name; we have our first slate of officers; we have a board; we are conducting three new information sessions around the state; we have a mission statement and are on our way to obtaining tax-exempt status; we have received another grant.

The officers are Stan Wertheimer - President, Jackie Dorwin - Vice President, Pat Sullivan - Secretary, Jim R. - Treasurer, Pat G. - Membership, Tom Sullivan - Workshops, Brian C. - Librarian. The Board comprises the officers plus Dr. Toni DeMarcaida.

An information session (organized by Nancy & Peter Oltheten) will be at the Hartford Hospital Health Care Center, on Thursday, October 10th, 6:00 to 8:00 P.M 704 Hebron Ave. Glastonbury, Education Room (Rm-102) The session will include a Movement Disorder Specialist (Dr. J. Antonelle de Marcaida); a Clinical Research Nurse from UConn Health Center (Sheila Belber); and two members of the Connecticut Parkinson's Working Group. There will be a presentation followed with some time for questions or comments. It is recommended you pre-register, by calling (860) 872-2825 or by email at ParkSun95ataol.com.

Another session will be in Plainville: Plainville Municipal Center, Room 304,
One Central Square, Plainville, Thursday, October 3, 2002 at 6:30 p.m. Parkinson,'s Disease specialist from IND - Barbara Fussell, contact for more information Marge Krawczynski: 860-793-8944.

A third session organized by Jackie, Stan, and Barbara Fussell of IND, will be held in New Haven either late October or early November.

The grant was $500 from Pharmacia.

At the next meeting, which starts at 10 a.m. and goes right through lunch, we will discuss frequency and dates of meetings in the future.

The following is a new feature in the nl. I hope the members will send by mail or email, or call in, news about what is happening in their lives. We will include it in every issue to enable the rest of us to get to know each other more personally. It will, I hope, create a community feeling. So try to get over our shyness (I know I had to) and send something in that is new in your life. **Stan**

News From The Pews September 2002

Brian **C.** is leaving his long affiliation with Crystal Rock (our benefactor for drink and snacks) in the new year so that he, Sally and their son can go to Florida to start a new life as restaurateurs. This has been a long-time family wish. Brian will let us know where he settles so that we can come down and visit.

During this past summer the **Dorwin** Family relocated daughter Cindy from Boston, MA to Dover, NH. Cindy has begun studies towards a Masters degree in Social Work at the University of New Hampshire (UNH). Their other daughter Becky has started a new job in Oyster Bay on Long Island as a Family Therapist at Harmony Heights School. Becky"s husband Todd is studying in NYC to become a cantor. Son Dan is busy attending the University of New Haven (UNH!) full-time as a Music Industry major, while working part-time at Guilford Printworks and also at the Madison Arts Barn where he does all the bookings for the Saturday night shows.

Meg Sullivan, daughter of Pat (CPWG secretary) and Tom **Sullivan**, married Cory Skolnick on July 28, 2002. The ceremony was held at Hill-Stead Museum in Farmington; reception at Simsbury 1820 House. Meg and Cory now live in Washington, D.C.

At the end of August Stan **Wertheimer** had his second cornea transplant in Boston. Gunilla **Norris** has had her book, "B**eing Home**" reissued by the Paulist Press; a new issue of "Becoming Bread" is due out in February of 2003.

Connecticut Parkinson's Working Group
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DISCLAIMER: Articles in this newsletter are for information only. Any questions of treatment should be discussed with your physician.

WRITE! your representatives in congress.

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