

Breathe Bulletin



A Quarterly Newsletter of the
Pulmonary Fibrosis Foundation
Volume 8 Issue 1 - February, 2008



President's Message

The Pulmonary Fibrosis Foundation came into existence on September 1, 2000. During most of that time period I have experienced various forms of frustration. The most painful was the fact that despite the tremendous expenditure of time and treasure a cure for Pulmonary Fibrosis still eluded us. We even failed to find a treatment protocol that would slow down the progression of the disease. We were forced to face the agony of watching our family and friends pass on while we stood by helpless to intervene.

Many new drugs were introduced which promised to be the solution. Unfortunately they all failed. Finally, in 2007, research entered a new phase. Two research institutions developed treatment protocols to which the term "cure" could be applied. These drugs would not only halt the progression of the disease but might even reverse it. (See articles on Current Research.) These two programs are still in their initial stages but they hold out the potential of real progress.

The Center of Excellence at the University of Chicago (see report) is making great strides in helping us understand the complexity of Pulmonary Fibrosis which will result in tailored treatments for each patient. It seems that our million dollar investment was money well spent. There is currently more new research than at any time since we came into existence. We must continue to invest in research since this is the only path that will find a solution to the suffering and death that afflicts us all.

The time for your support is now. Please help.

Michael Rosenzweig, Ph.D.,

President and CEO

-
- 1 **President's Message**
 - 2 **Support Groups**
 - 3 **Advice to Caregivers
News**
 - 4 **Current Research**
 - 5 **Current Research**
 - 6 **Foundation Supported
Research**
 - 7 **2008 Calendar of Events**
 - 8 **Center of Excellence
Report**

Disclaimer

The material contained in this newsletter is for educational purposes only and should not be considered as medical advice. Always consult your health care provider for treatment options.

Support Groups

Support groups provide an opportunity to meet other people who share similar experiences and you realize you are not alone in battling this disease. You meet with people who can relate to what you are going through. You can learn from each others experiences on how to better cope with pulmonary fibrosis. The goal of a support group is to create a warm, non-judgmental atmosphere where members can talk about life's challenges without embarrassment as well as give support and encouragement to each other.

The Pulmonary Fibrosis Foundation offers an on-line group for those that can't find a local face-to-face group and have access to a computer. The link is: <http://health.groups.yahoo.com/group/Breathe-Support/>. You can "talk" to other people who are dealing with similar situations as you are. One of our buzz phrases is "we get it". Our families love us but they don't understand the daily struggles. Of course, both groups could say this!! We also offer a caregiver site where they can also share with each other about their concerns. Here's the

link: <http://health.groups.yahoo.com/group/Breathe-SupportCaregivers/>.

In October, some of the patients from the on-line group got to meet each other in Chattanooga, TN. It was so awesome to actually meet each other in person. It was so meaningful to one of the caregivers who attended that she is helping to organize a caregiver/patient meeting in San Antonio, TX in May. Needless to say, all who are able to attend are looking forward to it.
Leanne Storch

Starting a support group can be easy. **Choose a place** you'd like to meet; restaurant, public library, community center, hospital meeting room, etc. Keep in mind that the meeting place should be accessible to as many people as possible. **Pick a time;** monthly, bi-monthly, once a quarter? Morning? Afternoon? **Pick a day;** it's easier for people to remember if it's the fourth Saturday of the month as opposed to changing days all the time. **Print up flyers;** we can post it on our website and mail to local people in your area. You can invite speakers; respiratory therapists, oxygen reps, doctors, etc. to speak at your meeting.



Foundation Staff

Michael Rosenzweig, Ph.D.
President and CEO

Leanne Storch
Executive Assistant and Patient Advocate

Vakarie Roberts
Director of Development

Myrrick Liontonia
Database Administrator

Monica Storch
Administrative Assistant

Medical Advisory Board

David Kamp, MD Medical Director
Kevin Brown, MD Chairman
Marvin I. Schwarz, MD Past-Chairman
Rany Condos, MD
Roland M. du Bois, MD
Gary W. Hunninghake, MD
Naftali Kaminski, MD
Joseph Lasky, MD
Geoffrey Laurent, Ph.D.
Joseph Lynch, MD
Albert Niden, MD
Imre Noth, MD
Ralph J. Panos, MD
Ganesh Raghu, MD
Jesse Roman, MD
Moises Selman, MD
Charlie Strange, MD
Robert Strieter, MD
Jacob Iasha Sznajder, MD
Galen Toews, MD
Rolf Ziesche, MD
David A. Zisman, MD

Board of Directors

Daniel Rose, M. D.
Board Chairman
Michael Rosenzweig, Ph. D.
President and CEO
Joseph Borus, Esq.
Secretary
Daniel Beren
Leslie Bull
Nicol Corbin, M. D.
Gregory Davis, Esq.
Jennifer A. Galvin, M. D.
Thomas Hales
Heather Leverone
Sandra Bean Lewis
Joseph Maltese
Julie Willis O'Connor
Susan Rattner, M. D.
Nancy Rodriguez
Carl Salzano
Thomas Terrill

Advice for caregivers

Let's go team!

By Julie Deardorff

A single woman who lives alone, Chicago's Valjean McLenighan occasionally wondered how she would manage if she became sick or debilitated. Last month, after receiving a diagnosis of lung cancer, the 60-year-old writer found out: Share the Care. A model for group caregiving, Share the Care teaches novices how to organize friends, co-workers, church members, old roommates and others into a support network for someone who is seriously ill.

The highly structured approach is designed to help at least two groups of people: those who have never been a caregiver and don't know how to help a loved one with a serious illness, and current caregivers facing burnout. But it also can have the intended effect of providing peace of mind to the patient. It all starts with a scripted meeting usually organized by someone other than the patient, a process detailed in the book "Share the Care" by Cappy Capossela and Sheila Warnock. Captains are selected and given the task of organizing the week for the sick person or family.

But captains, who work in teams of two, don't have to make everything happen on their own; they have a database of volunteers to tap into and the how-to book, which includes sample forms, checklists and scripted passages. "The person who is ill doesn't have to worry, 'Have I asked this person too often? Is she on vacation this week? Does she have a car?'" said Kate Green of Chicago, who suggested that longtime friend McLenighan read "Share the Care." "Medications are delivered, drivers arrive to take you to appointments, people clean your house and walk your dog. It's a matter of keeping in communication and not overwhelming the sick person but being at their beck and call and making things happen."

McLenighan, an independent spirit who is blogging about her experience (valjeanupdate.blogspot.com) for friends and family, said she was "blown

away" by the response from the people in her life. She has eight captains -- two are on duty each week -- and a deep reservoir of 80 volunteers from around the world. Captain Francine Friedman, a close friend since high school, has a master list; she knows which volunteer is a "floater," who gets queasy at the sight of blood and who is the best go-to person during a serious crisis. When McLenighan was diagnosed, Friedman thought she'd just roll up her sleeves and dive into caregiving. "But we try to divide the responsibility," said Friedman, who runs her own consulting business.

"I'm sure [the structure] has helped Valjean immensely, and it's also helped us. We had a tremendously supportive captain's meeting last Sunday." Share the Care originated in New York City in the early 1990s after Capossela, Warnock and 10 other women came together to care for a terminally ill friend. The women, who were strangers when they met, stayed together for more than three years, doing everything from driving their friend to appointments to organizing her daughter's wedding.

After she died, they returned to their lives, but another friend came down with cancer and needed a bone-marrow transplant. "It was in the process of teaching the next group that inspired us," Warnock said. "We saw people come into this new meeting just like we had: scared, terrified, skeptical, nervous and anxious." Since then, they've realized the model isn't just for the sick and dying. It can be used to help people recovering from surgery, combat or an accident. Or it can assist an older adult who is still living on his or her own but needs help with shopping or driving.

"A lot of people out there don't realize they're caregivers, and it's a depressing, isolating, difficult job if you're doing it yourself," said Warnock founder of SharetheCaregiving Inc., which teaches the Share the Care model to hospitals and clergy. McLenighan credits both Share the Care and her meditation practice with helping her cope with the stress of dealing with lung cancer and the health-care system.

Chicago Tribune

News

Acid Reflux Study Looks At Lifespan Of Sufferers

Gastroesophageal reflux disease (GERD), often known as acid reflux, is a common problem that has been associated with cancers, asthma, recurrent aspiration and pulmonary fibrosis. A new study published in *The American Journal of Gastroenterology* examines whether GERD sufferers may have shorter lifespans than those without the disease.

Drawing on over 50,000 person-years of data, the study provides reassuring evidence that people with acid reflux symptoms do not have an increased risk of death, finding no difference in survival rates between sufferers and non-sufferers.

In fact, the study finds that people with infrequent acid reflux may actually have better survival rates than those with either daily symptoms, or none at all. "It may be that occasional reflux symptoms are a reflection of potential protective behaviors that are associated with reflux, such as regular exercise or modest amounts of alcohol ingestion," suggest Nicholas J. Talley and G. Richard Locke, III, co-authors of the study.

The study adds perspective to the risk of acid reflux symptoms. While there are a large number of acid reflux sufferers in the U.S., incidences of related cancer are extremely rare. "Although extraesophageal manifestations occur in some people with reflux disease, our results suggest that this disease is a benign condition in the vast majority of sufferers," say the authors. 04 Jan 2008

*Nicholas J. Talley
G. Richard Locke, III*

Please remove me from your mailing list

Name _____

Address _____

City _____

State _____ Zip _____

Current

First IPF treatment patented

Innovative pneumocytes transplantation has reverted the disease for the first time in rats

21-Dec-2007-Barcelona, Spain: Researchers from the Biomedical Research Institute of Barcelona CSIC (IIBB-CSIC), a centre developing research in the framework of the Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), have discovered and patented a method to stop and revert this disease in an animal model. A clinical study will be soon conducted in humans in the Hospital Clínic de Barcelona.

Results of their research work are published in the last issue of the American Journal of Respiratory and Critical Care Medicine. This study has had the collaboration of basic researchers, such as Dr. Anna Serrano-Mollar, and Dr. Oriol Bulbena, first and last signatories of the study; and researchers with a clinical background, such as Dr. Antoni Xaubet, from the Unit of Pneumology of the Hospital Clínic de Barcelona. This turns this work into a paradigm of translational research promoted in IDIBAPS and through other initiatives such as the Network of Centres of Biomedical Research (CIBERs). This research work has been financed through a contribution from the Fondo de Investigaciones Sanitarias (FIS) from the Instituto de Salud Carlos III.

Gas exchange is developed in lungs thanks to type 1 pneumocytes

in alveoli, cells recovering the inner walls of the alveolar cavity. Occupying the same spaces, there are also type II pneumocytes, precursor cells that repair the damaged alveolar tissue. When idiopathic pulmonary fibrosis appears, this regeneration process cannot be developed correctly and fibrosis advances until respiration is impossible. The technique developed by researchers from the IIBB-CSIC-IDIBAPS consists in a transplantation of type II pneumocytes via intratracheal. In order to monitor correctly the transplanted cells with genetic and fluorescence techniques, sexual chromosomal differences were used. Thus, the disease was induced in female rats, and cells from male rats were transplanted. This is a lowly invasive technique which has permitted to regenerate, for the first time, rat fibrotic alveoli where idiopathic pulmonary fibrosis was induced.

CSIC has patented as a treatment the cell suspension transplanted with this innovative strategy. The world patent will be proved in humans with a clinical study, soon conducted in the Hospital Clínic de Barcelona thanks to the financing of the Fundación Genoma España and CSIC. This study will have the participation of 6 recently diagnosed patients who will receive a suspension of type II pneumocytes coming from a dead donor, since these cells cannot be cultured in the laboratory. All this events throw new and hopeful light into basic and clinical research lines. One of the following steps of researchers will be to try to obtain type II pneumocytes from adult stem cells.

Marc de Semir, Head of Communication mdesemir@clinic.ub.es
 Alex Argemí, scientific editor aargemi@clinic.ub.es
 Tel.: 00 34 93 227 57 00

Fibrosis can be Stopped, Cured and Reversed

Tue 18-Dec-2007:

University of California, San Diego researchers have proven in animal studies that fibrosis in the liver can be not only stopped, but reversed. Their discovery, to be published in *PLoS Online* on December 26, opens the door to treating and curing conditions that lead to excessive tissue scarring such as viral hepatitis, fatty liver disease, cirrhosis, **pulmonary fibrosis**, scleroderma and burns. Six years ago, the UC San Diego School of Medicine research team discovered the cause of the excess fibrous tissue growth that leads to liver fibrosis and cirrhosis, and developed a way to block excess scar tissue in mice. At that time, the best hope seemed to be future development of a therapy that would prevent or stop damage in patients suffering from the excessive scarring related to liver or lung disease or severe burns.

In their current study, Martina Buck, Ph.D., assistant professor of medicine at UCSD and the Veterans Affairs San Diego Healthcare System, and Mario Chojkier, M.D., UCSD professor of medicine and liver specialist at the VA, show that by blocking a protein linked to overproduction of scar tissue, they can not only stop the progression of fibrosis in mice, but reverse some of the cell damage that already occurred. In response to liver injury – for example, cirrhosis caused by alcohol – hepatic stellate cell (HSC) activated by

Research

oxidative stress results in large amounts of collagen. Collagen is necessary to heal wounds, but excessive collagen causes scars in tissues. In this paper, the researchers showed that activation of a protein called RSK results in HSC activation and is critical for the progression of liver fibrosis. They theorized that the RSK pathway would be a potential therapeutic target, and developed an RSK inhibitory peptide to block activation of RSK.

The scientists used mice with severe liver fibrosis – similar to the condition in humans with cirrhosis of the liver – that was induced by chronic treatment with a liver toxin known to cause liver damage. The animals, which continued on the liver toxin, were given the RSK-inhibitory peptide. The peptide inhibited RSK activation, which stopped the HSC from proliferating. The peptide also directly activated the caspase or “executioner” protein, which killed the cells producing liver cirrhosis but not the normal cells. “All control mice had severe liver fibrosis, while all mice that received the RSK-inhibitory peptide had minimal or no liver fibrosis,” said Buck. Buck explained that the excessive collagen response is blocked by the RSK-inhibitory peptide, but isn’t harmful to the liver. “The cells continue to do their normal, healing work but their excess proliferation is controlled,” Buck said. “Remarkably, the death of HSC may also allow recovery from liver injury and reversal of liver fibrosis.”

The researchers found a similar activation of RSK in activated HSC in humans with severe liver fibrosis but not in control livers, suggesting that this pathway is also relevant in human liver

fibrosis. Liver biopsies from patients with liver fibrosis also showed activated RSK. The study expands on work reported in 2001 in the journal *Molecular Cell* announcing that a team led by Buck had found that a small piece of an important regulatory protein called C/EBP beta was responsible for fibrous tissue growth, or excessive scar tissue following injury or illness. When normal scarring goes awry, excessive build-up of fibrous tissue can produce disfiguring scars or clog vital internal organs and lead to serious complications. Buck and colleagues developed a mutated protein that stopped this excessive fibrous tissue growth.

“Six years ago, we showed a way to prevent or stop the excessive scarring in animal models,” said Buck. “Our latest finding proves that we can actually reverse the damage.” Worldwide, almost 800,000 people die from liver cirrhosis each year, and there is currently no treatment for it. Excessive tissue repair in chronic liver disease induced by viral, toxic, immunologic and metabolic disorders all result in excessive scar tissue, and could benefit from therapy developed from the UCSD researchers’ findings. The research was supported by grants from the National Institutes of Health, the Department of Veterans Affairs and UCSD’s Medical Research Foundation. Buck is the recipient of a Howard Temin Award from the National Cancer Institute.

Martina Buck, Ph. D., UCSD
Mario Chojkier, M. D., UCSD

New organ-transplant method could eliminate rejection drugs

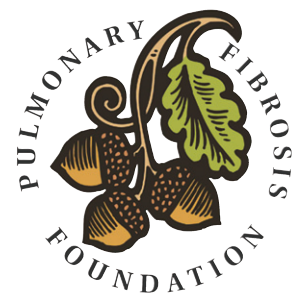
Jan. 24, 2008: LOS ANGELES - In what is being called a major advance in organ transplants, doctors say they have developed a technique that could free many patients from having to take anti-rejection drugs for the rest of their lives.

The treatment involved weakening the patient’s immune system, then giving the recipient bone marrow from the person who donated the organ. In one experiment, four of five kidney recipients were off immune-suppressing medicines up to five years later.

“There’s reason to hope these patients will be off drugs for the rest of their lives,” said Dr. David Sachs of Massachusetts General Hospital in Boston, who led the research published in today’s *New England Journal of Medicine*.

Since the world’s first transplant more than 50 years ago, scientists have searched for ways to trick the body to accept a foreign organ as its own. Immune-suppressing drugs that prevent organ rejection came into wide use in the 1980s. But they raise the risk of cancer and kidney failure. And they have side effects such as excessive hair growth, bloating and tremors.

Dr. David Sachs



Research supported by Foundation

Molecular pathway appears crucial in development of pulmonary fibrosis Discovery may provide new therapeutic target for dangerous lung disease

12-Dec-2007 A study led by Massachusetts General Hospital (MGH) researchers may have found a key mechanism underlying idiopathic pulmonary fibrosis (IPF), a usually fatal lung disease for which transplantation is the only successful treatment. The investigators found that a specific molecular pathway appears responsible for key aspects of the scarring of lung tissue that characterizes IPF, the cause of which is currently unknown. The results will appear in the January issue of Nature Medicine and have received early online release.

“Identifying the key role of this pathway in the development of fibrosis gives us an exciting new target for devising treatments,” says Andrew Tager, MD, of the MGH Pulmonary and Critical Care Unit, who led the study. “An agent that blocks this pathway is already being developed as a potential cancer treatment, and we’re hoping to

be able to test it in our animal model of IPF to determine whether it might be a candidate for trials in patients.” In any part of the body, scarring occurs when cells called fibroblasts, an important part of normal wound healing, make collagen to reinforce the healing matrix that forms over damaged tissue. Normally scarring is limited, but if too many fibroblasts travel to the site of an injury, large amounts of collagen can be deposited, producing excessive, fibrotic scarring.

Fibroblasts are known to be present in affected lung tissue in IPF, and previous studies showed that the activity of factors that attract fibroblasts to the site of an injury rises with the severity of the disease. The current study was designed to determine which specific “chemoattractants” were associated with IPF, something not previously known. Analysis of fluid from the lung surfaces of a mouse model of pulmonary fibrosis suggested that the activity of lysophosphatidic acid (LPA), acting through its receptor LPA1, was responsible for attracting fibroblasts in the disorder. This association was supported by the fact that a strain of mice lacking the gene for LPA1 did not develop pulmonary fibrosis when treated with a compound that usually

causes the disease in the animals. Lung fluid samples from human IPF patients not only had significantly higher levels of LPA than control samples, laboratory tests showed that patient samples attracted fibroblasts while fluid from controls did not. In addition, an agent that blocks the LPA1 receptor eliminated the ability of fluid from IPF patients to attract fibroblasts.

“These results indicate that the LPA-LPA1 pathway is responsible for the abnormal migration of fibroblasts into the lungs in IPF, an absolutely crucial step in the development of fibrosis,” says Andrew Luster, MD, PhD, senior author of the study. “This pathway appears to be involved in several steps in the development of fibrosis, including the leaking of blood vessels, which is why the LPA1 knockout mice are so dramatically protected. If we’re right, then targeting this pathway should be a very exciting new therapeutic strategy for IPF.” Luster is director of the MGH Center for Immunology and Inflammatory Disease Vanderbilt University School of Medicine; Annie Pardo, National Autonomous University of Mexico; and Jerold Chun, Scripps Research Institute. The study was supported by grants from the **Pulmonary Fibrosis Foundation.**

Yes! I want to support the work of the Pulmonary Fibrosis Foundation by making a contribution.

Donation Amount: \$5,000 \$1,000 \$500 \$100 \$50 Other _____

Restrict my donation for Research Use my gift where the need is greatest

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ E-mail _____

Send check to: Pulmonary Fibrosis Foundation, 1332 N. Halsted Street, Suite 201, Chicago, IL 60622

If you would like to charge your Contribution: Visa MasterCard Discover American Express

Account Number _____ Expiration Date _____

Credit Card Contributions may also be made by Phone: (312) 587-9272 or Fax (312) 587-9273

2008 50 in 50 Events

The 50 Events in 50 States Fundraising Campaign creates awareness of pulmonary fibrosis and raises funds for research. These fundraising events are vital to our success. More information can be found at: www.pulmonaryfibrosis.org/events.htm. To host an event call (312) 587-9272

California

- Still in Development

Connecticut

- Still in Development

Georgia

- Still in Development

Illinois

- Jeff Kramer and friends are hosting a music benefit in loving memory of Darlene Hohmann at Fitzgerald's in Berwyn on Sunday February 10th from 4 to 8 PM.
- Erin Parizek and friends are hosting a craft Bazaar/bake sale on April 6th in Park Ridge in honor of Dan Fitzgerald. Call 773-725-6393 for more information

Massachusetts

- Still in Development

Michigan

- 4th Annual "Paddle out Pulmonary Fibrosis" canoe outing in memory of the Dery and Willacker families on August 2nd organized by Matt & Fred Dery

Missouri

- Still in Development

Montana

- Still in Development

New Hampshire

- Cathleen Brown is running 2nd annual 1/2 marathon on April 8th, 2008 in memory of her mother Patricia Vaudreuil who died of Pulmonary Fibrosis. For more info: www.cathleenbrown.com. To donate online: www.active.com/donate/cathleen

New Jersey

- Still in Development

New York

- Still in Development

Ohio

- Still in Development

Pennsylvania

- 3rd annual benefit bike run and picnic hosted by Rob Fiorillo and family in memory of Barbara A. Fiorillo on July 5th

Texas

- Wally Holmesly, family and friends are hosting the first annual Cajun / Cowboy event in Snyder Texas on April 26, 2008. For more information contact Shana Reed at : 325-573-3800

**If you would like to host an event, please call the Pulmonary Fibrosis Foundation at:
312-587-9272**

Ask for the Fundraising Handbook.

University of Chicago Report

Quarterly Report from the University of Chicago Center of Excellence

Since our last report, IPF research at the University of Chicago has made steady and substantial progress. We remain exceptionally busy in the clinic, where we are rigorously collecting phenotype data from our patients to ensure the best and most accurate characterization of their disease. This is helping us understand how the disease is expressed and will ultimately allow us to identify potential targets for treatment.

Additional investigative efforts have

demonstrated that IPF is likely characterized by multiple influences, including genetic factors, in patients with a predisposition to the disease. We suspect that treatment will need to address many or all of these factors simultaneously and are in the process of identifying disease pathways. Over the past several months, our laboratory efforts have been focused on small controller regions of RNA, which represent just one of a series of junctures that ultimately determines if a healthy or unhealthy cell will develop.

Thanks to newer and more powerful methods of high throughput genetic expression technologies, we have been able to examine these controller regions en masse for the

very first time. Unlike the single candidate gene studies traditionally employed by researchers, high throughput screening allows us to examine thousands of disease pathways at once, yielding faster and more targeted results.

In this case, we are proud to report, the screening generated significant and thought-provoking data, which will drive additional research into the role of RNA controller regions in the development of IPF. It is only a first step, but a very exciting one. Additional work in this area is bound to generate new investigative leads and potentially new treatments. We look forward to keeping you updated on the results of our efforts.

University of Chicago



Pulmonary Fibrosis Foundation

1332 N. Halsted Street, Suite 201

Chicago, IL 60622-2691

phone: 312.587.9272 fax: 312.587.9273

e-mail: pulmonaryfibrosisinfo@yahoo.com

web: www.pulmonaryfibrosis.org

Nonprofit Org.
U.S. POSTAGE PAID
Oak Brook, IL
PERMIT No. 100