Researchers at the Vermont Lung Center have just completed a 3-year NIH-funded clinical research trial to study the effects of yoga breathing, or pranayama, in patients with COPD. And the results are very promising!

COPD, or Chronic Obstructive Pulmonary Disease, is a lung disease almost always caused by cigarette smoking that causes shortness of breath, cough, excess sputum production, and severely reduced ability to exercise. The main problem in the lungs is the inability to empty air, which causes the lungs to trap air and makes it very difficult to breathe. Medications like inhaled bronchodilators can help to some extent by opening up the airways and making it easier for air to flow out of the lungs. Pulmonary rehabilitation programs are also extremely successful in helping patients cope with disease, in part by providing exercise training sessions that help them get into shape, and by teaching them to breathe slowly. But there are only a few pulmonary rehabilitation programs around, and the waiting lists to get in can be very long.

A few years ago we decided to see if the breathing associated with yoga, called pranayama, would help patients with COPD breathe easier and exercise more. If so, this might be an easy thing patients could do at home to help them breathe, even if they didn’t have access to a pulmonary rehabilitation program. The main purpose of pranayama is to slow and relax the breathing, so it seemed this would be ideal for patients who have severe COPD and can’t do full yoga or don’t have access to a yoga program.

Together with colleagues at Baylor College of Medicine in Houston, Texas, we studied 43 patients who were randomly assigned to receive pranayama training plus standard education about COPD, or just standard education alone. We measured their lung function, exercise capacity, symptoms and quality of life before and after 12 weeks of pranayama plus education, or education alone, and found that the patients who received pranayama training were able to walk farther during a standardized exercise test compared to those in the education-alone group. Some of the lung function measures improved slightly in the pranayama group but not in the education-alone group, which suggested that pranayama was helping these patients empty their lungs more. Multiple measures of symptoms and quality of life improved variably in both groups.

While we continue to analyze the data at this time, we feel these findings are sufficient to justify a large, multicenter, clinical trial that will involve hundreds of patients across our American Lung Association Airways Clinical Research Centers network. The primary purpose will be to not only confirm these preliminary findings of improvement in exercise capacity, but also determine how pranayama affects anxiety and depression among patients with COPD, which are significant problems that make the breathing issues feel even worse.
**New Faces at Vermont Lung Center**

**Welcome Rose and Heidi**

**Heidi Pecott-Grimm RN**

**Research Nurse Supervisor**

Heidi began working as the Research Nurse Supervisor at the Vermont Lung Center in November. Heidi grew up in Essex Junction and graduated from Champlain College and Saint Michael's College for Accounting. After her volunteer work as an EMT on Saint Mike’s Rescue she decided to pursue a nursing degree at UVM. Heidi has worked at The University of Vermont Medical Center for 24 years with work experiences in In-Patient Pediatrics, Pediatric Cardiology, Case Management, was the Organ Donation Coordinator, and the Nurse Clinician for Pediatric Pulmonary and the Pediatric Cystic Fibrosis Nurse Coordinator. Heidi is enjoying working with the research team and seeing some of her former pulmonary patients that are currently involved in research studies at the Vermont Lung Center.

When not at work, Heidi enjoys spending time with her husband and four children.

**Rose Bergeron**

**CF Research Coordinator**

Rose joined the Vermont Lung Center last Spring as the CF Research Coordinator. She has worked for the University of Vermont Medical Center for 15 years and has a background in Cardiology, Phlebotomy, has worked 30 years as an EMT and is a CPR/AED instructor. She attended South Central Community College in New Haven, CT and received training as an Emergency Medical Technician and Phlebotomist.

In her free time she enjoys participating in marathons, triathalons, and coaches others to run marathons. She has participated in 4 half Iron Man competitions. She recently celebrated the birth of a new beautiful Grandson and has three other Grandchildren she enjoys spending time with.

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**Improving Communication in the ICU**

**Prema Menon, M.D.**

**Shared decision making (SDM)** is a collaborative process that allows patients and their providers to make health care decisions together, taking into account the best scientific evidence available, as well as the patient’s values and preferences. Patients admitted to the Intensive Care Unit (ICU) are very ill and carry a very high risk of death. Due to the nature of their illness and inability to communicate, physicians often rely on their family members or loved ones to speak on behalf of the patient. This can cause a high burden of stress, anxiety and depression among loved ones of critically ill patients. The University of Vermont Medical Center (UVMMC) is the only tertiary care ICU for all of Vermont and much of upstate NY. Loved ones of patients transferring to our ICU from smaller rural hospitals often are not able to travel easily to the UVMMC to participate in shared decision-making. We are conducting a study in which we use telemedicine (a tele-video conferencing program) to conduct early family conferences with family members or loved ones before their critically ill loved one transfers to our ICU. The purpose of this study is to allow family members to participate in early-shared decision making even when they are not physically present at the bedside.

Many patients in the ICU suffer from acute respiratory failure requiring them to be intubated (placement of an endotracheal tube in their mouth which connects them to a mechanical ventilator). Some of these patients are awake and would typically be able to participate in shared decision making, if they were able to communicate while on the ventilator. We are currently developing an electronic device that will allow these patients to communicate basic needs and participate in their own care. This device is being created with feedback from patients, family members, nurses and physicians.

The ultimate goal of this research is to improve communication in the ICU and allow patients and family members a safe and effective way to participate in care. We plan to continue to pursue these research studies so that we can successfully provide patient- and family- centered care to all patients admitted to our medical ICU.

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**Be a Research Volunteer**

The Vermont Lung Center is responsible for making sure you know what is expected of you in regards to the research study:

1. Once the study is explained to you, you will be asked to read and sign an “Informed Consent”. This form is designed to explain everything you need to know about the study.
2. Studies may be therapeutic (involving observation of lung function). However, The Vermont Lung Center can make no claims that your involvement in a research study will improve your condition.
3. Compensation may or may not be provided to you for your involvement in a study. Compensation provided, is meant to cover your time and expenses incurred—it does not constitute employment.

www.uvm.edu/medicine/vermontlung.org
**ASTHMA**

**APR (Asthma Patient Registry)** Volunteers: Asthmatics ages 12+, What: A registry to identify patients especially specific subgroups (e.g. smokers, elderly, and demographics to contact for future studies, and develop future research studies.

**NAC: Effects of BMI On Allergic Responses** Volunteers: Asthmatics and Healthy Controls ages 18-65 yrs. / 2-3 visits / Compensation: Up to $200

**Pfizer: Biomarkers In Uncontrolled Asthma** Volunteers: Asthmatics 15-70 yrs. using Advair, Symbicort, Dulera, or Spiriva / Visits: 3-4 / Compensation: up to $300

**UVM MG: Airway Compliance In Relation to BMI In Asthma** Volunteers: Asthmatics and Healthy Subjects 35-55 yrs. / Visits: 3-4 / Compensation: up to $300—$600

**IDIOPATHIC PULMONARY FIBROSIS (IPF) STUDIES**

**Roche (A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study to Assess the Efficacy and Safety of Lebrikizumab in Subjects with IPF)** Volunteers: Age 40 and over, with IPF / Up to 34 visits over a 2 year period / Compensation for travel over 100 miles

**Fibrogen-067 (A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of FG-3019 in Subjects with IPF)** Volunteers: Age 40-80 yrs. inclusive with IPF / Up to 38 visits over a 2 year period / Compensation: up to $3,800

**CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)**

**VHIP (The Effect of Pulmonary Rehabilitation on Ventilation Heterogeneity in Patients with COPD)** Volunteers: Patients enrolled in the University of Vermont Medical Center Pulmonary Rehab program / 2 Visits

**EMPROVE: A Prospective, Randomized, Controlled, Multicenter Clinical Study to Evaluate the Safety and Effectiveness of the IBV Valve System for the Single Lobe Treatment of Severe Emphysema** Volunteers: Patients diagnosed with Severe Emphysema / for more information call Sara Ardren 802-656-7953

**CYSTIC FIBROSIS**

**Anthera: A Phase 3, Randomized, Open-Label, Assessor-Blind, Non-Interiority, Active-Comparator Study Evaluating the Efficacy and Safety of Liprotamase in Subjects with Cystic Fibrosis-Related Exocrine Pancreatic Insufficiency** Volunteers: 18 yrs. and older with CF who are using pancreatic enzymes / 10 visits over 6 months / Compensation: up to $2,925

**Novartis: A prospective observational study in cystic fibrosis patients with chronic respiratory Pseudomonas aeruginosa infection treated with TOBI Podhaler (tobramycin inhalation powder) or other FDA approved inhaled antipseudomonal antibacterial drugs** Volunteers: 6 yrs. and older with CF who are using inhaled antibiotics, 1 study visit during a routine clinic visit and the observation only for 5 yrs

**A Point Prevalence Study to Evaluate the Prevalence of Antibodies to Selected Porcine Viruses in Patients with Cystic Fibrosis Who Are Receiving Porcine-Derived Pancreatic Enzyme Replacement Therapy: A Harmonized Protocol Across Sponsors** Volunteers: 2 + yrs. and older with CF who are using pancreatic enzymes and Volunteers 2 + yrs. / with a chronic illness and who are NOT using pancreatic enzymes / 1 study visit during a routine clinic visit for one blood draw / Compensation $25

**PULMONARY ARTERIAL HYPERTENSION**

**DLCO-PAH (Changes in the Diffusion Capacity for Carbon Monoxide (DLCO) in Response to Vasodilator Therapy in Patients with Pulmonary Arterial Hypertension)** Volunteers: Patients with Pulmonary Arterial Hypertension / 3 Visits / Compensation: up to $150
Welcome to LUNG FORCE Expo—Burlington, VT

The LUNG FORCE Expo is a program designed for patients, caregivers and healthcare providers to learn more about the latest trends, resources and research surrounding lung cancer, COPD and asthma. Speakers from a variety of fields will present current medical information on topics that have the most impact on those whose lives are touched by these conditions, as well as provide up-to-date medical information for healthcare professionals to help support patients.

By participating in the LUNG FORCE Expo you are helping change what it means to live with lung disease.

Join us to:

- **Learn** important lung disease information.
- **Share** a meaningful experience with others who are fighting lung disease.
- **Care** for yourself and others by expanding your lung disease knowledge

This year’s event will be held on April 27, 2016 at:
DoubleTree by Hilton Burlington
1117 Williston Rd
South Burlington, VT 05403

Walk With Us!

Together, we can make a difference in the fight against lung cancer in women.
Join us at the upcoming LUNG FORCE Walk... Thursday evening, June 23, 2016 * Oakledge Park * Burlington

Go to: www.LungForce.org and join the Vermont Lung Center Team!

Be sure to check out LUNG FORCE on Facebook and Twitter and join the conversation about fighting lung cancer in