



International Congress of Porphyrins and Porphyrias

The International Congress of Porphyrins and Porphyrias, jointly organized with the Swiss Society for Porphyria (SGP), the European Porphyria Initiative (EPI), the German EPP Society and the Swiss Society of Clinical Chemistry (SSCC/SGKC) May 16-18, 2013 in the charming city of Lucerne, Switzerland. In addition to the general program, there will also be an **International Porphyria Patient Day** on

May 18th jointly organized by the Swiss Society of Porphyria (SGP) and the German EPP Society as a collaborative event including specialists. A special symposium, *Fundamentals in Porphyrias*, will also be held on May 18th and will serve as an introductory campaign and satellite symposium to the EUROMEDLAB congress held from May 19th to 23rd in Milano, Italy. President of the Congress, Professor Elisabeth Minder, MD, joins experts from around the world as participants in an outstanding program listed below:

- *Heme biosynthesis, iron and the porphyrias*, John Phillips, Salt Lake City, Utah/Xiaoye Schneider-Yin, Zurich
- *Heme and the porphyrias, where we are*, Richard Hift, Congella
- *Mendel and the porphyrias*, Bernard Grandchamp, Paris
- *Clinical complications of porphyrias*, Maria Cappellini, Milan/Jean-Charles Deybach, Colombes
- *Phototoxicity of porphyrins (dermatological complications)*, Robert Sarkany, London
- *Cancer in the acute porphyrias*, Christer Andersson, Umea
- *Recurrent attacks in the acute porphyrias – role of exogenous heme*, Caroline Schmitt, Colombes
- *New therapies in the porphyrias/animal models*, Staffan Wahlin, Stockholm/Michael Badminton, Cardiff
- *Alpha-MSH analogs: physiological & pharmacological action & potential side effects*, Thomas Luger, Münster
- *Gene therapy in acute intermittent porphyria*, Jesús Prieto Valtueña, Pamplona
- *Hot topics in porphyrins and porphyrias*, Peter Meissner, Cape Town/Elisabeth Minder, Zurich
- *Fundamentals in Porphyrias*, Peter Meissner, Cape Town/Maria Cappellini, Milan
- *Porphyria networks, outcome for patients and quality control for the diagnosis*, Michael Badminton, Cardiff / John Phillips, Salt Lake City
- *European Porphyria Network (EPNET)*, Samantha Parker, Puteaux
- *American Porphyria Consortium*, Karl Anderson, Galveston
- *Quality control for the diagnosis of porphyrias*, Sverre Sandberg, Bergen
- *Clinical presentations, questions and conundrums*, Eliane Sardh, Stockholm/Jean-Charles Deybach, Colombes
- *Porphyrias: state of play*, Elisabeth Minder, Zürich, Urs A. Meyer, Basel



The International Porphyria Patient Day, organized by the *Swiss Society for Porphyria* and the *German EPP Patient Group*, will be held on Saturday, May 18th. The venue for the event is the renowned Culture and Congress Center KKL in Lucerne. The primary objectives of the Patient Day are as follows:

- networking between individual patients, their organizations and the scientific experts in the field of porphyria,
- sharing information on the latest research activities and clinical advances,
- discussing international collaborations between patient organizations and
- planning for an international umbrella organization to more effectively protect patients' well-being and promote their interest.

The Swiss Society for Porphyria and *the German EPP Patient Group* would like to encourage representatives from the various international patient associations and individual porphyria patients to attend the Patient Day. They have expressed their hope that many patients and interested parties will attend making the day an enriching and valuable event for the cause of porphyria patients around the world. The program is below:

- *Acute Porphyrias – Diagnosis and Treatment Options*, Prof. Jean-Charles Deybach, Colombes
- *Cutaneous Porphyrias – Diagnosis, Liver Involvement and Treatment Options*, Dr. Staffan Wahlin, Stockholm
- *Pain in the Porphyrias*, Dr. Matthias Firnau, Datteln
- *Patient Testimonials by Acute and Cutaneous Porphyria Sufferers*
- *Attending Patient Organizations Introduce Themselves*
- *Experience with International Collaborations between Patient Organizations – EURORDIS*
- *International Network for Porphyria Patients: from Concept to Reality*

There will also be a Gala dinner together with the scientists at the historic and beautiful Hotel Schweizerhof on Friday, May 17. The event fee includes lunch and coffee breaks is \$53 per person if paid by April 1. Late registration cost is \$150. Limited scholarships funds are available. Please contact the APF if you are interested in attending.



Testing and Latent Porphyria There are two types of testing that are used in the diagnosis of Porphyria: (1) biochemical testing on urine, blood and stool to measure the amounts specific porphyrins and porphyrin precursors and (2) DNA analysis to identify the causative mutation (or change) in a specific Porphyria gene. When an acute porphyria is suspected, the first-line of testing that is recommended is porphobilinogen (PBG) and d-aminolevulinic acid (ALA) measurements on a urine sample that has been protected from the light by wrapping in tin foil. Measurement of total porphyrins in urine can also be done to help differentiate a specific

acute porphyria. The urine can be either a random sample or a 24-hour collection, with the urine collected at the time of an attack prior to any treatment, including carbohydrate loading, glucose infusions, or hemin and analyzed at an experienced lab. When a cutaneous porphyria is suspected, the first-line of testing is fluorometric measurement of total plasma (blood) porphyrins and the red cell porphyrins. Experience is also important in interpretation of the results. Misdiagnosis has become a common problem in patients who do not have a Porphyria, but present with suggestive symptoms and have clinically insignificant small or nonspecific elevations in the biochemical tests.



DNA analysis is considered the "gold standard" for porphyria diagnosis. Biochemical testing is recommended prior to DNA analysis to determine whether a diagnosis of porphyria is likely and to suggest the specific type of porphyria. However, DNA analysis can be performed without biochemical testing and when a person is not symptomatic. The Mount Sinai Genetic Testing Laboratory in New York City performs DNA analysis for Acute Intermittent Porphyria (AIP), Hereditary Coproporphyria (HCP), Variegate Porphyria (VP), Porphyria Cutanea Tarda (PCT) and its autosomal recessive form, Hepatoerythropoietic Porphyria (HEP), Congenital Erythropoietic Porphyria (CEP), Erythropoietic Protoporphyrria (EPP), and X-Linked Protoporphyrria (XLP). The Lab does not perform DNA analysis for the very rare Aminolevulinic Acid Dehydratase Deficiency Porphyria (ADP), but will perform this analysis on a research basis if results of biochemical testing are consistent with ADP. For DNA analysis of each of the porphyrias, the lab does gene sequencing which means that studies are preformed to identify any change (or mutation) in the gene where disease-causing mutations occur. By sequencing genomic DNA, >97% of the known gene mutations listed in the Human Gene Mutation Database can be detected, as well as most previously unrecognized mutations. In the event that a mutation is not found, it is recommended that further biochemical testing be performed if the patient becomes symptomatic and/or additional DNA analyses be considered depending on the patient's symptoms, previous genetic testing, and/or results of previous biochemical tests. If a mutation is identified, it is recommended that the patient and other family members be clinically evaluated by a Porphyria specialist and be tested to determine if they have the mutation.

All porphyrias, except some forms of PCT, are genetic, meaning that they are caused by a mutation (or change) in a specific Porphyria gene. Each type of porphyria involves the deficiency of a specific enzyme in the pathway of heme formation. The exception is 'sporadic' PCT, in which the enzyme deficiency develops during life from a combination of environmental factors (for example, iron accumulation, acquired liver disease, alcohol and some medications including estrogen). Each of the eight enzymes in the heme pathway has its own gene, located on one of the human chromosomes. In the acute porphyrias, all people with symptoms have a mutation in one of the acute Porphyria genes, but most people who have a mutation never develop symptoms; this is referred to as "latent" acute porphyria. Acute attacks are often provoked by drugs such as barbiturates, sulfonamide antibiotics, anti-seizure drugs, rifampin, metoclopramide, and alcohol, reduced food intake, often in an effort to lose weight, infections, surgery, stressful situations, and, in some women, after ovulation and during the last part of the menstrual cycle when progesterone levels are high.

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SCENESSE
Afamelanotide 16mg
Clinuvel's lead drug in development

Phase III Trials for SENESSE/Afamelanotide for EPP are almost complete. This is an exciting time!! We may have another Orphan Drug. After all the data is collected, it will be submitted to the FDA. They will then assess the information and hopefully, give their approval for the treatment to be used in

the USA. Prior to that decision, we ask that you write a letter to the FDA, relating your experience with EPP and how essential it is to have a treatment for the disease. It would be good to include your symptoms, concerns, and whatever keeps you from living a normal life. If you participated in the trials, it would be helpful to share your experience on the drug. Please send your letters to the APF, and we will present them to the FDA all together. Although emails are easy, please do not send emails unless you have a signed, scanned letter. **Thank you!!**

Why Participate In A Clinical Trial?

The decision to participate in a clinical trial is a personal one. It should be discussed with your physician and family. Most importantly, it should be an informed decision. Participating in a clinical trial allows you to be proactive in the management of your health, have access to new research treatments before they become available to the general public, and help others by contributing to medical research. If you are considering participating in a clinical trial, make it a point to find out as much as you can about the new drug, and discuss the trial with your doctor. Clinical trials may provide some patients with an option when approved therapies fail. Some other patients may participate in trials because they want to contribute to the advancement of medicine.



For each clinical trial, researchers develop eligibility criteria, such as age, sex, type and stage of disease, previous treatment history, and other medical conditions. Criteria like these help to diminish the amount of variation in the study—without threatening the scientific integrity of the trial—by removing medical variations that might complicate the analysis of the results. Thus, not everyone who applies for a clinical trial will be accepted. Volunteers may be excluded based on the eligibility criteria and/or the number of participants needed by the researchers to collect enough information to determine the safety and effectiveness of a therapeutic agent.

PAIN News !!! In 1931, the French medical missionary, Dr. Albert Schweitzer, wrote that “pain is a more terrible lord of mankind than even death itself.”



Porphyria pain in particular is a challenge for family, friends, and health care providers who support individuals suffering from the physical and emotional consequences of pain. While progress is being made toward understanding the physiological mechanisms involved in pain, understanding an individual’s pain experience presents unique scientific challenges. The levels of pain experienced by different people and their reactions to pain vary widely. Unfortunately, as we mentioned in the previous newsletter, some states have instituted new legislation that restricts availability of crucial pain medications and essential drugs that are used in hospitals and clinics and prescriptions from primary care doctors.

To assist patients who have encountered these serious problems for porphyria patients in pain, we have engaged pain experts, like Dr. Kathleen Foley, who is an attending Neurologist in the Pain & Palliative Care Service at Memorial Sloan-Kettering Cancer Center in New York City. She is one of the most esteemed physicians in pain management and was the leading physician to create “pain management” as a medical discipline. As more states are making it difficult for patients with “real” pain to receive proper pain treatment, having such renowned doctors participate in our pain project will make a powerful impact on state health departments and legislators. If you have experienced such problems, please contact: porphyrus@aol.com



Protect the Future News

Dr. Charles Lourenco, one of our PTF doctors from Brazil, has been invited to make a presentation on acute porphyrias at the IX International Symposium of the Portuguese Society for Metabolic Diseases (SPDM) in Coimbra, Portugal! Dr. Lourenco hails from the University of São Paulo, Department of Genetics in Ribeirão, Brazil. There are now twenty PTF doctors who have either completed the PTF training or are in training now. Our goal is for each of these young doctors to be recognized as porphyria experts nationally and internationally.



On <http://www.medscape.org/viewarticle/712889> watch PTF doctors, Dr. Manisha Balwani and Dr. Brendan McGuire with experts Drs. Herbert Bonkovsky and Karl Anderson on a Medscape Session entitled, *Acute Porphyrias: Recognition Through Follow-Up*. Dr. Balwani is an assistant professor of Genetics and Genome Sciences at Mount Sinai School of Medicine and an internist at Mount Sinai School of Medicine and Hospital in New York City. Dr. McGuire is Professor of Medicine and the Medical Director of Liver Transplant at the University of Alabama where he is a leading expert in liver transplantation and liver diseases, like porphyria. Dr. McGuire, who is board certified in both internal medicine and gastroenterology, focuses his clinical and research efforts on liver related diseases.

"If it isn't porphyria, what is it?" is a question we hear almost every day at the APF. Many people, who think they have porphyria, find out that they have been misdiagnosed, particularly when they were diagnosed with acute porphyrias using porphyrins for screening instead of PBG or ALA as indicated. Therefore, the APF is part of a committee which helps address the needs of this group of undiagnosed people. Recently, the NIH program for the undiagnosed held a webinar to give guidance to this group of undiagnosed patients. Read about this program: <http://www.genome.gov/27544402> and enroll to have your condition diagnosed by a group of trained clinicians.



The information contained on the American Porphyria Foundation (APF) Web site or in the APF newsletter is provided for your general information only.

The APF does not give medical advice or engage in the practice of medicine. The APF under no circumstances recommends particular treatments for specific individuals, and in all cases recommends that you consult your physician or local treatment center before pursuing any course of treatment.

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What's New at the APF www.porphyrifoundation.com

Is Your Membership and Contact Info Up to Date? The APF is able to maintain our physician and patient education programs and many other services because of your support. Since we do not receive government funding to run the APF, we need your support and donations. We also need your new contact information if you have moved since our last newsletter. Be sure to send us your email address so you can receive the ENEWS.

Protect the Future program to train future experts is important. Only recently, we had another porphyria expert retire. Dr. Michelene Mathews-Roth, who was a very loved EPP researcher, retired from her position at Harvard. Without experts, like Dr. Roth, primary doctors have nowhere to turn for advice and to learn about porphyria. This is a critical problem that we are trying to prevent by training young doctors as future experts. We need your help funding this program.

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