The Membrane is Everything

The Intensive Clinical Course

PK Protocol

Internationally Recognized in Biomedical Research
Neurological Disease & Essential Fatty Acid Metabolism

WEST COAST

October 14th - 15th, 2011
Friday - Saturday
Riverside, CA

6761 DeGrazia Road • Riverside, CA 92506
(20 minutes from Ontario, CA airport)

EAST COAST

November 4th - 5th, 2011
Friday - Saturday
Millville, NJ

45 Reese Road • Millville, NJ 08332
(Nearest Airport: Philadelphia Int.)

Limited Registration Space Available

Includes: Extensive Biomedical Manual, research,
systematic clinical protocols, medical forms, patient dietary and
supplement support, books and supplies

Nutrient dense food provided throughout the conference

Nondisclosure Required

45 Reese Road • Millville, NJ 08332 • 856-825-8338 • Fax: 856-825-2143
The Intensive Clinical Course
PK Protocol
October 14th and 15th &
November 4th and 5th, 2011

Friday, October 14th & November 4th

8:00 am – 9:00 am  Power Breakfast and Registration
9:00 am – 11:00 am  The PK Protocol: A Phospholipid
Approach to Disease and Toxicity
11:00 am – 11:15 am  Repletion Break
11:15 am – 1:00 pm  Life on the Membrane
1:00 pm – 2:00 pm  Working Lunch
2:00 pm – 3:00 pm  Lipids 101
3:00 pm – 4:00 pm  Cardio Disease, Choline, and TMAO
4:00 pm – 5:30 pm  Demonstration of the PK Protocol
5:30 pm – 6:00 pm  Clinical Pearls, Questions / Answers

Saturday, October 15th & November 5th

8:00 am – 9:00 am  Power Breakfast
9:00 am – 11:00 am  Neurological Disease & Toxicity: Alzheimer’s,
MS, Parkinson’s, Autism, Post Stroke, CFIDS,
NeuroLyme, Epilepsy
11:00 am – 11:15 am  Repletion Break
11:15 am – 12:30 pm  Biomedical Detoxification of microbes,
chemicals, pesticides, metals via IV
Phospholipids
12:30 pm – 1:30 pm  History and Presentation, Forming Protocols,
Clinical Progress Case Presentations with
Working Lunch
1:30 pm – 3:30 pm  The Dynamics of Administering the
IV Advanced PK Protocol
3:30 pm – 3:45 pm  Repletion Break
3:45 pm – 5:30 pm  Clinical Pearls and Research on the
PK Protocol

Extensive Biomedical Manual with systematic clinical protocols, medical forms,
patient dietary and supplement support, research, books, and nutrient samples
provided. Nutrient dense food provided throughout the conference.

West Coast Tuition – $450  After September 15th – $550
East Coast Tuition – $450  After October 10th – $550
Normalization of Phospholipid Membrane with Oral Phosphatidylcholine

Five year old female with an undiagnosed neuromuscular disease presented with a gross distortion of her phospholipid architecture with abnormal lipid binding in June 2010. After 4 months (Oct 2010) of oral phosphatidylcholine imaging of her lipid membrane shows marked improvement along with normalization of her mitochondria (an immune –viral- complex was isolated on the mitochondria). Patient is now able to walk with assistance, has increased muscle tone, and increased growth and development.
The lipid soluble nature of toxicity has led us to seize the complexity of states of disease by observation of the distortion within the plasma and mitochondrial cell membranes following exposure to toxins. The intricate architecture of the cell membrane, a lipid envelope comprised of phospholipids, is a reflection of not only the health of the cell, but that of the body and brain. Previously, we discovered via red cell lipid analysis that subjects with neurological disease as Alzheimer’s, Autism, Multiple Sclerosis, Motor Neuron Disease/ALS, Parkinson’s Disease, Epilepsy, Post Stroke and metabolic disease had a characteristic accumulation of very long chain fatty acids (VLCFAs), which comprise lipid rafts, or ceramides, revealing cell membrane derangement and dysfunction. Membrane phospholipid abnormalities with elevation of VLCFAs may be indicative of exposure to fat soluble toxins resulting in suppressed peroxisomal beta oxidation of VLCFAs. Through identification of nuclear DNA adducts as chemicals, pesticides, heavy metals, phthalates, oxidized and toxic lipids and other cellular function evaluation from Acumen Laboratory in Devon, England in conjunction with the red cell lipid analysis we have been able to correlate the impact of toxicity with membrane distortion and dysfunction in regard to disease, especially those involving neurological dysfunction. Our international think tank has developed a clinical treatment strategy using oral and intravenous therapy. The accumulation of toxins on the nuclear and mitochondrial DNA, cellular membranes and proteins, aberrant lipids / ceramides are addressed with phenylbutyrate, phosphatidylcholine, methyl factors, intravenous glutathione, growth factors, electrolytes and co-enzymes.
Methods

Applying the Advanced Membrane Stabilizing protocol adult and pediatric patients are given weekly one to two multi gram bolus infusions of phosphatidylcholine, followed by Growth Factors, Leucovorin (folic acid) and rGSH Fast Push and Ascorbic Acid administration. In addition, Sodium Phenylbutyrate as 3 to 5 grams is administered in an IV drip twice weekly.

Oral therapy includes unsaturated lower order fatty acids as a 4:1 omega-6 to omega-3 oil, Evening Primrose oil, EPA, Fatty Alcohols, Calcium / Magnesium Butyrate or Sodium Phenylbutyrate, Phosphatidylcholine (PC), co-enzyme and methylation support-folic acid, tetrahydrobiopterin, riboflavin, NADH and methylcobalamin (by injection). Targeted treatment protocols are utilized after red cell lipid analysis has been completed.

1) Phenylbutyrate per oral and IV to stimulate the peroxisomal beta oxidation
2) Bolus intravenous Phosphatidylcholine as Lipostabil or Essentiale N
3) Methylation factors -folic acid, riboflavin, methylcobalamin, tetrahydrobiopterin
4) Sulfation support - IV Glutathione and oral branched chain amino acids
5) Ascorbic acid per oral and IV
6) Growth factors per IV application with phospholipids
7) Electrolyte and trace mineral and vitamin co-factors per oral supplementation
8) Utilization of a nutrient dense, carbohydrate limited diet to control Phospholipase A2
9) Targeted EFA oral intake per test RBC fatty acid test results

Results

The use of oral and IV lipids has facilitated stabilization of phospholipids in cellular membranes thereby addressing cell membrane integrity of our patient populations along with clearance of toxins from the nuclear and mitochondrial DNA, cardiolipin, proteins (enzymes, metallothionein) and normalized cellular function. The addition of intravenous phenylbutyrate addresses neuroinflammation by increasing the beta oxidation of VLCFAs. Growth factors stimulate neuroregeneration. Disturbances in methylation due to toxic exposure may destabilize the membrane phospholipid structure and alter DNA expression thus methyl co-factors are integral to therapy.

We have noted the clearance of the bioaccumulation of toxins on the DNA adducts and stabilization of membrane function in our patients after initiating clinical treatment four to six months after onset of lipid therapy. The use of the membrane stabilizing intravenous lipid protocol, clears ~ 70% of the intracellular toxins, particularly those on the DNA adducts after 20 bolus lipid infusions. Intensive oral nutrient therapy is also simultaneously utilized. We have noted marked and sustained clinical improvement within the first few weeks after initiation of treatment in our combined patient population of 500 subjects using Acumen cellular function analysis for verification and clinical observation of patient’s status, especially in regard to neuroinflammation. Expansion of the Advanced Membrane Stabilizing protocol with bolus PC dosing, IV Phenylbutyrate, growth factors and ascorbic acid has yielded further improvement in our patients.

Conclusion

Application of bolus Phospholipid therapy with Phosphatidylcholine (Lipostabil or Essentiale N), Growth Factors, Leucovorin, Phenylbutyrate, Co-Enzymes, Methyl factors and Glutathione have been successfully utilized in clinical settings throughout the US and abroad. These results demonstrate that lipid therapy may reverse prevalent symptoms and stabilize aberrant neurochemistry in patients with neurological disease, and should be considered for more formal studies. Further clinical studies are in progress in preparation for university based trials. The administration of our lipid-based protocol may offer a new therapeutic strategy for neurological and other diseases involving toxic exposure.
References

Cui A, Houweling M. Phosphatidylcholine & cell death Biochem Biophys Acta 2002 Dec 30; 1585(2-3):87-96


Kane PC, Cartaxo AL. Chapter 24: Seizures- Balancing Fatty Acids in the Diet to Stabilize Brain Activity in: Food and Nutrients in Disease Management Editor, Ingrid Kohlstadt, 2009 Boca Raton, FL: CRC Press


Kane PC, Speight N, Drisko J. Phospholipids & ALS Compendium, U of Kansas Oct 2004


References


Rapoport SI. In vivo fatty acid incorporation into brain phospholipids in relation to signal transduction & membrane remodeling. *Neurochem Res. 1999 Nov;24(11):1403-15*


Sharma A, Waly M, Deth RC. Protein kinase C regulates dopamine D4 receptor-mediated phospholipid methylation. *Eur J Pharmacol. 2001 Sep 14;427(2):83-90*


Waheed AA, Freed EO. The Role of Lipids in Retrovirus Replication. *Viruses. 2010 (2), 1146-1180*


## Accommodations

### WEST COAST

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<th>Hotel Name</th>
<th>Distance</th>
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<tr>
<td>The Mission Inn Hotel &amp; Spa</td>
<td>10 mins</td>
<td>3649 Mission Inn Ave. Riverside, CA 92501</td>
<td>(951) 784-0300</td>
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<tr>
<td>Hilton Ontario</td>
<td></td>
<td>700 North Haven Ave. Ontario, CA 91764-4902</td>
<td>909-980-0400</td>
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<td>DoubleTree by Hilton Hotel Ontario Airport</td>
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<td>222 North Vineyard Ave. Ontario, CA 91764-4431</td>
<td>909-937-0900</td>
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<tr>
<td>Sheraton Ontario Airport Hotel</td>
<td></td>
<td>429 North Vineyard Ave. Ontario, CA 91764</td>
<td>909-937-8000</td>
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### EAST COAST

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<tr>
<td>Fairfield Inn and Suites by Marriott</td>
<td>10 mins</td>
<td>301 Bluebird Lane Millville, NJ 08332</td>
<td>856-776-2400</td>
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<tr>
<td>Holiday Inn Express Hotel &amp; Suites</td>
<td></td>
<td>398 Smith Street Vineland, NJ 08360</td>
<td>856-293-8888</td>
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<tr>
<td>Country Inn</td>
<td></td>
<td>1125 Village Drive Millville, NJ 08332</td>
<td>800-596-2375 • 856-825-3100</td>
</tr>
<tr>
<td>Wingate by Wyndham</td>
<td>14 mins</td>
<td>2196 W Landis Ave • Route 55 (Exit 32A) Vineland, NJ 08360</td>
<td>856-690-9900</td>
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### Register Now!

**The Intensive Clinical Course PK Protocol**

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**East Coast - Friday, Nov. 4th and Saturday, Nov. 5th, 2011**

Don’t miss this seminar. Mail or fax 856-825-2143 your registration today with payment to:

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Please make checks payable to BodyBio.

  - Tuition: **$450.00**
  - Tuition After Sept. 15: **$550.00**
  - No refunds after Sept. 14

- [ ] East Coast – Nov. 4th - 5th, 2011
  - Tuition: **$450.00**
  - Tuition After Oct. 10: **$550.00**
  - No refunds after Oct. 7

Name __________________________________________________________ Degree __________________________

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