

<p>Module 3</p> <p><u>Immuno-Metabolic Evaluation and Management for Spinal Disorders</u></p>	<table border="1" data-bbox="643 285 1395 394"> <tr> <td data-bbox="643 285 1019 394"></td> <td data-bbox="1019 285 1395 394">Presented by Scoliosis Systems O &amp; P LLC</td> </tr> </table> <p>Steven Geanopoulos D.C.,DACNB</p> <p>Founder Cyrene Labs</p>		Presented by Scoliosis Systems O & P LLC
	Presented by Scoliosis Systems O & P LLC		
<p>Day 1</p>	<p><b>Registration</b></p>		
	<p><b>Adolescent Idiopathic Scoliosis vs. Adult Onset Etiology:</b> Genetics vs DDD ...</p>		
	<p><b>Pathophysiology of Scoliosis Progression:</b> Epigenetic activation/suppression of genes.</p>		
	<p><b>Shear Forces and Epigenetics</b></p>		
	<ul style="list-style-type: none"> <li>● Methylation and disease</li> </ul>		
	<ul style="list-style-type: none"> <li>● <b>Immuno-mechanical responses in Scoliosis</b></li> </ul>		
<p>2:15pm</p>	<ul style="list-style-type: none"> <li>● <b>Cross talk between muscle and immune cells in scoliosis concavity</b></li> <li>● <b>LTP/LTD in the CNS associated with aberrant movement</b></li> </ul>		
<p>2:30pm</p>	<p><b>Break</b></p>		
<p>\</p>	<p><b>IL-6 and Pro Inflammatory Cytokines: Review of the Literature:</b> Studies confirm IL-6 gene involved in Scoliosis</p>		

	<ul style="list-style-type: none"> <li>• <b>Type 1 Immune Responses:</b></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Type 2 Immune Responses:</b></li> </ul>
	<b>Strategies for the Down Regulation of Pro-inflammatory Cytokines</b>
	<b>Epigenetic Diet and Supplementation</b>
	<b>Metabolic Blood Testing:</b>
	<b>CBC, Metabolic Panel</b>
	<b>Lab low vs Functional Low</b>
	<b>Anemias, Blood Sugar Regulation, Vit D</b>
	<b>hsCRP, Homocysteine</b>
	<b>Hormones</b>
	<ul style="list-style-type: none"> <li>• <b>Total Testosterone, DHEA, SHBG</b></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Estradiol</b></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Thyroid Hormones</b></li> <li>• <b>T3,T4, TSH, Reverse T3</b></li> </ul>
	<b>Adjourn</b>

<b>Day two</b>	
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Day 2	<b>Bone health and Hormones</b>
	<ul style="list-style-type: none"> <li>● <b>Leptin Regulation</b></li> </ul>
	<b>Hypothalamic Amenorrhea:</b> Learn about the hypothalamic-pituitary axis abnormalities in Scoliosis.
	<ul style="list-style-type: none"> <li>● <b>Pro-inflammatory diets:</b> Omega 6 FA</li> <li>● <b>High Fat Diets</b></li> <li>● <b>Ketogenic Diets</b></li> <li>● <b>Caloric Restriction</b></li> </ul>
	<b>Rationale For Supplementation</b>
	<ul style="list-style-type: none"> <li>● <b>Strontium vs. Calcium</b></li> </ul>
	<ul style="list-style-type: none"> <li>● <b>Vit D, A, E, K</b></li> </ul>
10:30am	<b>Break</b>
\	<ul style="list-style-type: none"> <li>● <b>Curcumen, Resveratrol, Green Tea Extract</b></li> </ul>
11:00am	<ul style="list-style-type: none"> <li>● <b>B vitamins</b></li> </ul>
11:15am	<ul style="list-style-type: none"> <li>● <b>Glutathione</b></li> </ul>
11:30am	<ul style="list-style-type: none"> <li>● <b>Nitric Oxide balance</b></li> </ul>
11:45am	<b>Low Bone Density for Age:</b> DEXA scans for all ages, both hips and lumbar spine
12:00pm	<ul style="list-style-type: none"> <li>● <b>Statins, Phytoestrogens, Isoflavones</b></li> </ul>

12:15pm	<b>Break</b>
12:30pm	Case Reviews
12:45pm	Case Reviews
1:00pm	<ul style="list-style-type: none"><li>• Case Reviews</li></ul>
1:15pm	<ul style="list-style-type: none"><li>• Case Reviews</li></ul>
1:30pm	<ul style="list-style-type: none"><li>• Case Reviews</li></ul>
1:45pm	<ul style="list-style-type: none"><li>• Case Reviews</li></ul>
2:00pm	<b>Contra indications, Risk Management, and Referrals</b>
2:30pm	
3:00pm	
	<b>Adjourn</b>