**xRMD News: Macular Degeneration can be Treated with Hormones and Methylation Biochemistry**

*A review of recent clinical experience at XRMD shows that macular degeneration is associated with disturbances in the methylation pathways and low hormone levels. Furthermore, a rarely seen improvement in vision followed by stability is possible when hormone and methylation pathway deficits are corrected.*

Cleveland, OH (PRWEB) February 19, 2013 -- Macular Degeneration is a chronic progressive disease that leads to blindness. Studies have shown that vitamins may be helpful however little understanding exists as to how and why at the molecular level and rarely is vision improved.

"We report that an early improvement in vision followed by stability is possible in macular degeneration patients when hormones are restored to youthful levels and gene - enzyme errors in the methylation pathways are compensated for" says Ophthalmologist George W. Rozakis, MD, Optometrist Scott Sedlacek OD, and Gerontologist Les Emhof MD.

"The gene - enzyme errors are part of a new syndrome called GEMS, which stands for genetic enzymatic methylation syndrome", says Brian Bakke PhD, xR chief science officer. Hormonal decline and GEMS participate in the cause of macular degeneration, the leading cause of blindness in the growing baby boomer generation.

GEMS can lead to high homocysteine, oxidative stress and unstable genetics; all of which cause degeneration of the macula. High homocysteine levels have been shown to accelerate the conversion of the dry form of the disease to the wet form.

GEMS causes unstable genetics by underproducing SAMe, a crucial molecule that is used to control DNA behavior by the transfer of a methyl (CH3) group. When SAMe levels decline the genome is under-methylated which can lead to a number of disease states. For example, Alzheimer's patients have low SAMe levels and it is believed that macular degeneration may be Alzheimer’s disease in the eye.

The therapeutic strategy is to reverse hormonal decline to stimulate normal genetic function in the retinal pigment epithelial cells and targeted nutraceutical support to overcome errors in the methylation pathways that cause oxidative stress and abnormal production of important biomolecules.

"The strategy to arrest the development of macular degeneration is to define and reverse all acquired errors of biochemistry as they all conspire to create this disease," says Dr. Rozakis. Antioxidation with Vitamin E, acetyl-cysteine and other antioxidants are a vital part of the strategy along with optimizing methylation capacity and hormonal optimization. This approach incorporates prior studies of relatively simple nutraceuticals.

Based on this information it is possible to perform blood work to assess the integrity of a patients oxidative, methylation and hormonal status. Genetic testing is also available to further diagnose and treat genetic errors in the methylation pathway.

"We did not anticipate improvement in visual acuity", said Dr. Rozakis. Patients on their own volunteered this observation. The first patient indicated that she could go from daytime vision to night vision much more
quickly. That is called dark adaptation and is driven by the same cells (RPE) that degenerate in macular degeneration. Other patients noticed a more complete visual field. Many patients report that their eye doctors were surprised that their vision stopped deteriorating over time. There is enough observation and science here to bring this to the attention of patients with this disease and the eye care community.

"Optometrists and Ophthalmologists must embrace this science," says Scott Sedlacek, OD. The current strategies to prevent macular degeneration are not very effective and certainly not nearly as rooted in biochemistry and genetics. Hormones and methylation are a new chapter in preventing and treating eye disease. We have a great deal to learn from our colleagues in the worlds of organic and biochemistry.

To learn more or find a doctor that can provide this form of care register at www.xrmd.com and download the abstracts to the references supporting this press release. A prior press release on GEMS is also available.

Company Information: xR is a network of forward thinking physicians and scientists who specialize in the application of genetics, bioidentical hormones, nutraceuticals, and nutritional recommendations to improve patient outcomes and reduce the cost of healthcare. "xR" derives its name from the inverse of the traditional symbol for prescription "Rx". Ideal health is the balance between xR and Rx care. Visit us at http://www.xrmd.com
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