Genetic Tests

Info on different panels, SNP's

Here is the information (from her website) on the new genetic tests designed by Amy Yasko, available from her office (call 207-824-8501) or order online at www.holisticheal.com

Complete Basic SNP Panel I (40 SNPs): $750.00

The Complete Basic SNP Panel I represents Dr. Amy Yasko's preferred SNP panel. It includes SNPs for a number of genes that are integral to the methylation pathway. There are multiple SNPs that will be analyzed for each of the relevant genes. If you have not run other SNP panels that cover genes in the methylation pathway this is the SNP Panel for you.

Many of the newer SNPs that Dr. Yasko has chosen for this panel have not yet been fully characterized in terms of their effects on these genes. By analyzing patterns that are seen as a function of SNPs on nutritional status, Dr. Yasko has already been able to discern relationships between genes that may not have been intuitively obvious. This was the case for the interaction between the VDR Bsm/ VDR Taq SNPs and the COMT gene as well as the impact of the MTHFR A1298C mutation and its interaction with CBS C699T. By running this Complete Basic Panel you will have additional SNPs that have been picked for analysis by Dr. Yasko, allowing you to be in a position to benefit from future relationships and interactions that Dr. Yasko may be able to describe concerning these genes. (AHCY-5,CBS-3,COMT-5,MAO A,MTR-3,MTRR-9,MTHFR-4,NOS, VDR-3,ACE,SOUX-2)

Limited Basic SNP Panel II (29 SNPs): $575.00

If you have already run other SNP panels that include the COMT V158M and the MTHFR C677T , MTHFR A1298C, and the CBS C699T then the Limited Basic SNP Panel II will complement the information that you already have. The Limited Basic SNP Panel II adds all the new SNPs that Dr. Yasko has chosen that are a part of the Complete Basic SNP Panel I, without including the MTHFR, COMT and CBS SNPs that were run on prior tests.
(AHCY-5,CBS-2,COMT-7,MAO A,MTR-2,MTRR-8,MTHFR-2,SOUX-2)

Economy Basic SNP Panel III (10 SNPs): $350.00

The Economy Basic SNP Panel III is the most cost effective SNP Panel. It includes the minimum SNPs that are needed for a nutrigenomic analysis of the methylation pathway. It does not include the newer SNPs that Dr. Yasko has chosen for future analysis; however these can be added later by running the Limited Basic SNP Panel II.
(CBS-C699T,COMT-V158M,MTR-A2756G,MTRR-A66G,MTHFR-A1298C and C677T,eNOS G894T,VDR -TBsm1C and CTaq1T,ACE)

Add On Panels(coming soon)

Oxidative Stress SNP Panel IV (20 SNPs):

The Oxidative Stress SNP Panel IV focuses on several genes that are involved in detoxification, glutathione S transferase as well as super oxide dismutase. This panel is valuable as an "add on" to one of the Basic SNP Panels, or as a "stand alone " SNP panel. It gives information on systems involved in addressing oxidative stress and can be useful in determining the level of glutathione supplementation that is needed to support genetic weaknesses in these pathways.

GAD Panel V (19 SNPs):

GAD is the enzyme responsible for the conversion of glutamate to GABA. Imbalances in glutamate and GABA are centrally involved in triggering excitotoxin damage to nerves in the body. Individuals with mutations that decrease the activity of this enzyme may be

more susceptible to glutamate induced damage. Panel V includes select SNPs for the GAD 1 and GAD 2 enzymes. (Panel X is a much more comprehensive SNP panel for the GAD enzyme, including 170 SNPs).

MAT Panel IV (10 SNPs):

MAT Panel VI: covers methionine adenosyl transferase, the enzyme responsible for converting methionine to S adenosyl methionine. Mutations that negatively impact the activity of this enzyme could impair the ability to generate SAMe for methylation reactions in the body. This panel gives valuable information that would help in choosing nutrients to supplement the methylation pathway, including the choice to directly add SAMe as a supplement. Mutations that decrease the activity of MAT may indicate a need for supplemental SAMe, even for individuals who are COMT + +.

Comprehensive Panels

Panels VII, VIII, IX, X,XI:
These SNP panels are comprehensive panels that include over 100 SNPs for each of the relevant genes. These panels are useful for individuals that are concerned about the activity of a particular gene. The impact of these genes on the methylation cycle is depicted on the diagram included in this packet. The following genes are currently available for this in depth SNP analysis:

G6PDH Panel Comprehensive VII : covers glucose 6 phosphate dehydrogenase. This enzyme is involved in glucose regulation, regeneration of glutathione and red blood cell lysis. This enzyme is affected by sulfur donors including sulfur based detoxification agents. This panel should be considered by those using large quantities of sulfur groups, sulfur based chelation as well as individuals with enhanced levels of bruising and bleeding.

OTC Comprehensive Panel VIII: covers ornithine transcarbamylase. This enzyme is involved in ammonia detoxification. Individuals who do not have a CBS up regulation, yet have highly elevated ammonia levels should consider this panel.

DHPR Comprehensive Panel IX: covers dihydropteridine reductase, the principle enzyme responsible for converting BH2 to BH4. This panel would be particularly useful for individuals with MTHFR A1298C mutations, which may already have a negative impact on levels of BH4. Additional issues with DHPR activity can compound MTHFR A1298C mutations.

BHMT Comprehensive Panel X: covers betaine homocysteine methyltransferase, the enzyme for the secondary pathway converting homocysteine to methionine. This panel is useful for individuals with multiple mutations in MTR and/or MTRR. Individuals with imbalances in MTR and MTRR may rely more heavily on the BHMT enzyme to convert homocysteine to methionine. For this reason it may be useful to determine if there are weaknesses in this secondary pathway.

GAD Comprehensive Panel XI: GAD is the enzyme responsible for the conversion of glutamate to GABA. Imbalances in glutamate and GABA are centrally involved in triggering excitotoxin damage to nerves in the body. Individuals with mutations that decrease the activity of this enzyme may be more susceptible to glutamate induced damage. This enzyme is so central to balancing glutamate and GABA that a comprehensive panel should be considered by individuals with exceedingly high glutamate levels, or particularly low GABA levels