

# Nutrition & Mental Health

The Quarterly Newsletter of the International Schizophrenia Foundation



Summer 2007

## 37<sup>TH</sup> NUTRITIONAL MEDICINE TODAY CONFERENCE REPORT

The 2007 Nutritional Medicine Today Conference in Toronto, April 20-22, was our biggest yet with over 250 in attendance. The conference excelled in presenting exciting developments in mental health and orthomolecular medicine; we report here some of the highlights.

### **Aileen Burford-Mason, PhD**

Aileen Burford-Mason is a nutritional practitioner with a wealth of experience treating people with addictions. She presented a wide-ranging talk on the mechanisms of alcohol, nicotine, food and drug addiction.

Addictions fall along a spectrum from casual to intensive to compulsive. The biochemical triggers of cravings are among the prime targets of orthomolecular treatment. Cravings, Dr. Burford-Mason explained, are the manifestations of "reward pathways" whose roots reach back in evolution and reinforce certain survival behaviours. Every culture adopts certain substances and practices which stimulate reward pathways, and our culture's stimulants of choice are dominantly alcohol, nicotine and food

which is designed to stimulate rather than nourish.

Studies by the National Institute for Drug Addiction show that the potential for relapse for recovered addicts persists

relapse triggers for ex-smokers.

Addictions also appear to be interdependent. Smokers who substitute nicotine for their low brain choline find that recovery from alcohol dependence is much harder, because some of the reward pathways of both substances overlap.

All the addictions of an individual must be looked at to ensure success in recovering from each one.

When addicts use substances to stimulate reward pathways, the body naturally downregulates the receptors. Quitting the substances induces a

chronic understimulation of a reward pathway. Burford-Mason helps addicts to recover by using nutritional substances to lessen the understimulation, thus lessening the chronic empty feelings and the risk of triggering a relapse.

### **William Shaw, PhD**

William Shaw is the director of the Great Plains Laboratory, an orthomolecular resource center which treats conditions such as autism, ADHD and Down's Syndrome nutritionally. He spoke about the role oxalates and candida play in mental health. Oxalates are naturally-



indefinitely even after the acute cravings subside following a few weeks of sobriety. The internal triggers are the target of her therapies and Burford-Mason uses B-vitamins, amino acids, which form neurotransmitters, and essential fatty acids, which make up neuron structures.

Nicotine, for example, mimics the neurotransmitter, acetylcholine (ACh), which is formed from dietary choline. Because nicotine may be substituting for ACh, adding high quality lecithin sources such as egg whites and liver can lessen the

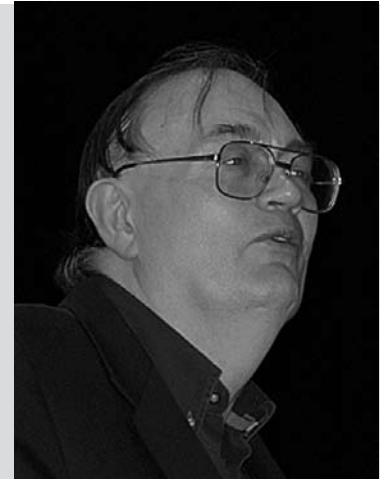
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**Aileen Burford-Mason, PhD**



**William Shaw, PhD**



**Harold Foster, PhD**

## NMT REPORT *cont'd*

occurring organic acids found in plants, animals and humans. When present in excess quantities, they can have negative health consequences. Oxalates are present in all tissues including the brain, where they impair mental function. They also foster abnormal candida overgrowth in the gut, and act as powerful chelating agents, sequestering mercury and lead which poison the brain. They can reach such high concentrations in the body that they precipitate into crystals and cause musculoskeletal problems.

Special low-oxalate diets can greatly improve childhood autism. As powerful accumulators of heavy metals, oxalates can inhibit the uptake of vitamins essential to cognitive functioning, thus, autistic children may find little change in their plasma vitamin levels after supplementation until they first reduce the oxalate levels.

Dr. Shaw then debunked what seems to be the only accepted claim about oxalates—namely that vitamin C increases their levels and causes kidney stones. New data has shown this to be false. One study of 45,000 men over 6 years showed no hint of increased kidney stone formation. Studies using high doses of vitamin C in autism not only showed therapeutic improvements but actually resulted in decreases in tissue oxalates.

Common nutritional strategies Dr. Shaw recommends are the use of low-oxalate diets along with supplementation. Particularly recommended are the citrate forms of calcium and magnesium

as well as vitamin C vitamin B<sub>6</sub> and arginine which compete with oxalates for absorption in the gut. Probiotics are also essential to address opportunistic fungal overgrowths in the gut implicated in mental illnesses. The hidden world of oxalates may explain the great difficulty and variable results of past nutritional interventions in treating autism.

### **Harold Foster, PhD**

Harold Foster PhD, gave a presentation adapted from his book *What Really Causes Alzheimer's Disease?* He began by describing Alzheimer's as "death by a thousand subtractions" meaning that those afflicted undergo "retrogenesis" and lose their faculties in the reverse order that they were acquired in childhood. The memory loss parallels the destruction of nerve myelin in the order it was laid down in youth. Dr. Foster also described in detail the two key features in Alzheimer's—tangles of tau proteins and plaques of beta amyloid proteins.

Geographical demographics appear to point away from a single gene and toward a combined genetic/environmental link. Recently discovered apoE genes associated with the disease are distributed evenly throughout the world and yet the disease flourishes in some countries and is virtually absent in others. Although immigration can't affect one's genes, it can indeed affect one's chances of getting the disease, as Japanese immigrants to the USA have demonstrated. Also compelling are the studies which show reversals of memory decline in Alzheimer's patients given a regime of vitamins.

Dr. Foster proposes a trinity of factors which cause Alzheimer's. A person with certain inherited genes is vulnerable when they live in areas where soil nutrients like calcium and magnesium are low and where an environmental contaminant called monomeric aluminum is high. In such situations, vulnerable persons may uptake aluminum in the place of calcium and magnesium. Aluminum can act as a substitute for calcium or magnesium in certain enzymes and when this occurs, the damaged enzymes may provoke the neuronal damage such as plaques and tangles.

Dr. Foster believes that a national strategy for treating Alzheimer's must focus on the source of the problem—the environment. We must reduce the needless and indiscriminate use of aluminum in fertilizers, food enhancing agents and water treatment plants which work their way up the food chain. Where water and soil deficits of calcium and magnesium exist, we must fortify selected foodstuffs to uniformly provide adequate calcium and magnesium. This dual strategy, according to Dr. Foster, can ward off accidental aluminum uptake in those who are vulnerable. For those at the early stages, benefits can come from immediate supplementation of calcium, magnesium along with B vitamins and vitamins C and E.

### **James Greenblatt, MD**

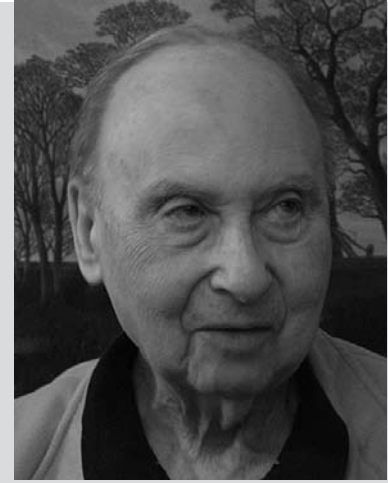
Dr. James Greenblatt is the founder and director of Comprehensive Psychiatric Resources. He spoke about the orthomolecular advances in the treatment of pediatric and adult obsessive compulsive



**James Greenblatt**



**Marty McKay, PhD**



**Abram Hoffer, MD, PhD**

disorder (OCD). OCD places great burdens on society—it's the fourth most common psychiatric disorder and the tenth leading cause of disability in the world.

Obsessions and compulsions are the hallmark of OCD, and their presence invades self-image, relationships, career, life satisfaction, emotional expression, parenting, and many other life areas. It is often co-morbid with schizophrenia, ADHD and depression and recovery does not often exceed 20%.

Dr. Greenblatt was excited about the great improvements obtainable in these severely debilitated patients by using a select few nutrients. He uses two extensively: inositol, a naturally occurring nutrient involved in cellular mediation of signal transduction and metabolic regulation; and 5-HTP the precursor of serotonin, a neurotransmitter involved in mood, appetite and sleep. Another important aspect of his practice is digestive enzyme therapy which is indicated when peptide testing of patients show a malfunction of the protein digesting enzyme DPP4. A deficit of this enzyme's activity appears common in autism and OCD and without it, partially digested proteins such as gluten and casein may leak into the blood in odd configurations. These fragments mimic complex molecules such as endorphins and can interfere with opioid receptors to cause behavioral symptoms.

Dr. Greenblatt cited several of his case studies using inositol supplementation. One adult patient with strong garbage-hoarding compulsion required

a detailed investigation of his biochemistry. Inositol and 5-HTP had minimal effects but when the patient was given a peptide test, he was found to have a deficiency of DPP4. Dr. Greenblatt eliminated wheat from the diet and prescribed enzyme formulas like Enzymate to help metabolize carbohydrates, fats and proteins, and SerenAid which helps to inactivate the milk and wheat digestive products, caseinmorphins and gluteomorphins, that adversely affect the nervous system. Dr. Greenblatt's goal is to bring these simple interventions to a mental health field dominated by the pharmaceutical mindset.

### **Marty McKay, PhD**

Dr. Marty McKay is a Clinical Psychologist who has been practicing in Toronto since 1976. She has worked as a consultant to governmental agencies, notably Children's Aid societies, and social and rehabilitation services. Dr. McKay began by describing her involvement in a CBC film "Finding Normal" which documented the incredible odyssey of "Jay," through the child welfare and psychiatric bureaucracy where he was subjected to abuse, multiple non-existent psychiatric diagnoses, and powerful drug treatments which almost cost him his life. In the end, he was rescued by Dr. McKay and brought back to health.

She made many friends and a few enemies after the airing of the exposé and said that the case of Jay is not an anomaly. Through various flaws and a collective lack of responsibility in the medical, legal and child welfare

system, children who are the victims of abuse understandably show symptoms of anxiety, fear, and anger but are being "diagnosed" as mentally disordered. Through these judgements children get stuck with the labels which are subject to constantly changing regimes of powerful psychiatric drugs. Dr. McKay calls these drugs chemical straitjackets which are being used to control children's behaviour under the guise of treatment.

How did we get to this sad state of child care? Largely by our government ceding control to powerful pharmaceutical interests. Dr. McKay warned that the labelling is often done by people with a vested interest in child compliance, such as group home workers who can simply fill out a checklist that makes a child appear mentally ill. The child is then referred for psychological assessment to "confirm" the checklist, followed by a prescription from a staff psychiatrist. Legally bound to take a powerful drug regime, the child soon develops new psychiatric side effects. Thus begins an endless cycle of iatrogenic mental illness from which it is almost impossible for the child to escape.

Dr. McKay invoked Occam's Razor, the principle which states "when you have two competing theories which make the same predictions, the one most logical and simple is probably correct." In this case, children who are abused and neglected, taken from their homes and put in foster care are likely to be upset, rather than suffering from a mysterious simultaneous onset of Tourettes, OCD, ADHD, schizophrenia or bipolar disease requiring half a dozen medications.

## NMT REPORT *cont'd*

Dr. McKay closed with an impassioned plea for us to get second opinions, question and refuse to “go along to get along” with the medical profession. We should embrace orthomolecular medicine because it aims to cure, and shun psychiatry whose goal is “management”—a state where the goal is to become obedient consumers of pharmaceutical product lines.

### **Abram Hoffer, MD, PhD**

Abram Hoffer was the last to take the podium with his talk on children and orthomolecular medicine and recalling Marty McKay’s little patient, Jay he added accounts of his own cases of children he had treated early in his career. They too were very ill, but recovered with orthomolecular therapy and went on to lead full lives and careers. Dr. Hoffer explained that the common and fortunate factor in these cases of long ago were that the labelling tyranny of the DSM-IV and its attendant drugs had not yet come into existence—just loose ad lib labels like retardation and dementia were used. Even though the complex dietary interventions had not yet come into vogue, plain old vitamin B<sub>3</sub> and vitamin C seemed to work wonders.

Dr. Hoffer then recounted his own start over half a century ago in Saskatchewan as chief of psychiatry and his collaboration with Humphrey Osmond, his first clinical trials with schizophrenic patients and the great success using niacin which soon grew into a considerable body of eight double-blind clinical trials. In these early trials patients recovery rates doubled from 35% to an astonishing 70%. Some attempted to repeat the studies and failed due to poor methodology, but when Hoffer’s protocols were followed, as they were in the National Institute of Medicine Study, the doubling of recovery rates was confirmed.

Reflecting back, Dr. Hoffer said that after running for 50 years, at first with the early pioneers, and now with the second wave of advocates now joining us, he would soon have to retire from the race. He thanked many of us personally for our efforts and hoped that the new generation of runners will carry orthomolecular medicine into the future.

—Greg Schilhab

## ABRAM HOFFER HONORED AT LIFETIME ACHIEVEMENT AWARD GALA



Margot Kidder welcomes Dr. Abram Hoffer on stage.



Dr. Hoffer is led to the podium by Steven Carter, Executive Director of the ISF, to address the Gala.



Shirley Douglas, actress, activist and long time friend and supporter of Dr Hoffer.

On the evening of April 19, friends, colleagues and supporters from around world joined together in the Fairmont Royal York Hotel’s storied Imperial Ballroom in Toronto for a wonderful evening of food and drink, images, music, recollections and tributes – all in celebration of the lifetime achievements Dr. Abram Hoffer. Margot Kidder hosted the Gala, held in tribute to the decades of real hope that Dr. Hoffer has given to those living with mental illness. Greetings from Stephen Harper, Prime Minister of Canada, and Michaëlle Jean, Governor General, were read to the Gala. Among the 250 guests were Ontario MPP Monty Kwinter, City Counsellor Howard Moscoe and internationally renowned concert pianist Anton Kuerti, who played Schubert

and Beethoven for a rapt audience. Tributes were heard from Andrew Saul, Gert Schuitemaker, Robert Sealey, and ISF Chair Jack Kay.

The evening was capped off with a short biographical film, “A Life in Pictures” (produced by the *NM&H* editors in their off hours), tracing Dr. Hoffer’s remarkable journey of from his beginnings in a hardscrabble rural Saskatchewan hamlet, across 90 years to the present, as the head of the International Schizophrenia Foundation. In her tribute to her father, Miriam Hoffer provided a tender and humourous glance into the warmth and love of their personal lives. This was a gala not to be missed, but if you were not among those present, commemorative Tribute Books from the evening are available from the ISF.