## Michael Miller, Ph.D.

Michael received a Ph.D. in Clinical Psychology from Rutgers University Graduate School in 1973. During the late 1970s, he served as the Chief Psychologist at one of the largest hospitals in Central New Jersey and also provided consulting services to a second facility for the development of its mental health program. After the planning phase of his consulting efforts ended, Dr. Miller co-founded one of New Jersey's largest independent group psychology private practices.

In 2005, Michael became a member of the advisory team of Business Services Group of The Center for Modeling Optimal Outcomes®, LLC; a New Jersey based think tank dedicated to the creation of models for business applications relative to the healthcare industry that could reduce excessive healthcare expenditures.

In early 2006, working with William McFaul, the founder of The Center, the duo initiated discussions concerning the emerging scientific discipline of epigenetics and the possibility that diseases known to be inherited by Ashkenazi Jews that are not related to DNA or chromosome mutations might be attributable to the concept. Within two months, they discovered the fact that brain chemistry (neurohormones) interacted and imbalances were likely to be the cause of focus disruption (ADD and ADHD) as well as emotional disruptions (obsessive-compulsive disorder, panic attacks and depression).

Michael's input and guidance was instrumental in the development of an array of services and the preparation of a portfolio of intellectual property for the application of Neuroscience in Business® with an emphasis on decision making and change dynamics. The portfolio of intellectual property developed by William McFaul included but was not limited to the following:

- Novel processes for the identification and categorization of individuals according to a schema based on habits (patterns) of thought for leadership, motivation, decision making, and team dynamics; i.e., How People Think®
- Creation of operating mechanisms to establish a culture of change acceptability and knowledge growth as a core competencies for corporations
- Identification of factors that are responsible for decision-making and thought patterns that vary between industries; e.g. the biomedical research community, physicians, hospital leaders and team-based sports.
- Explicit tools for training and education to establish integrative thinking as a means of mitigating organizational silos; thus enhancing communication and collaboration

When The Center formed a separate Life Sciences unit in mid-2009, Dr. Miller shifted his focus from consultation for cognitive applications in business to those associated with refining the model for the application of homeostasis between brain chemistry (neurohormones), their impact on mind – body interactions and those related to mood disorders.

His current efforts include consultation for the modeling of interactions between brain chemistry and their corollary relationships in all aspects of neuropsychology. His activities

include but are not to limited to consultation for intellectual property development relative to causal path variables for PTSD, ADD/ADHD, Asperger's, OCD, ODD, food addiction, the spectrum of dementias (including Alzheimer's), the existence of a spectrum of depression as well as an understanding of how neuroplasticity (one's habit of thinking and its outcomes) can impact interactions between neurohormones and imbalances that can create mental health abnormalities.

Working with William McFaul to formulate a model that explains interactions and imbalances in brain chemistry, the duo was forced to wait for research to validate their hypotheses. One such validation was the role of dopamine relative to changes in logic; i.e. impulsivity that could result in ADD/ADHD when levels were excessive.

http://www.asam.org/magazine/read/article/2014/06/12/on-impulsivity-the-neuroscience-of-behavior-associated-with-addiction

http://www.sciencedaily.com/releases/2014/10/141015085754.htm

Another was the link between dopamine and chronic pain; a hypothesis that had to be set aside until research validated their findings. <a href="http://www.utdallas.edu/news/2015/5/6-31524">http://www.utdallas.edu/news/2015/5/6-31524</a> Brain-Chemical-May-Offer-New-Clues-in-Treating-Chr story-wide.html It should be noted that the key link between neuroplasticity and chronic pain will require a confidentiality agreement to be in place for McFaul and Miller to address this issue.

As part of the mission of The Center for Modeling Optimal Outcomes, McFaul and Miller are currently collaborating to share their findings with the neuroscientific community relative to interactions between neurohormones and outcomes when imbalances exist. The objective of these efforts is to hasten the development of precision (personalized) medicine assessments and treatment strategies for mental health abnormalities that can also include physiological consequences.

Michael is currently licensed to practice Psychology in the states of New Jersey and Pennsylvania.