Caleb Bastian, DMD, PhD, MBA
Chief Science & Technology Officer, Massive Dynamics, LLC

Dr. Caleb Bastian is Chief Science and Technology Officer at Massive Dynamics. He develops and applies methods in the analysis and control of complex systems. He is the inventor of the Representational Learning Machine ™ (RLM) for the analysis of multivariate high-dimensional datasets and generation of "glass-box" interpretative diagnostics. This technology brings clarity, insight, and understanding to complex systems.

Caleb is also a Visiting Researcher in Applied Mathematics in the Labiratory of Dr. Hershel Rabitz in the Department of Chemistry at Princeton University.

Dr. Bastian earned a Doctor of Dental Medicine (DMD) from the University of Louisville. There he engaged in research activities in the analysis of high-dimensional biomedical data, also culminating in M.S. Degress in Bioinformatics, an MS. in Anatomical Sciences and Neurobiology from the Schools of Dentistry and Medicine respectively; along with an MBA in Finance from the School of Business.

Dr. Bastian was conveyed a Doctor of Philosophy (PhD) in Applied Mathematics from Princeton University's Program in Applied and Computational Mathematics.While at Princeton, Caleb worked in the Laboratory Professor Herschel Rabitz focusing on the development of mathematical methods for the analysis of complex molecular regulatory networks in cancer. He also collaborated with the laboratory of cancer biologist Yibin Kang in the Department of Molecular Biology at Princeton in a combined empirical-mathematical project elucidating the functional role of non-linear control dynamics in cancer metastasis.

In applied mathematics, Dr. Bastian's training is in Analysis, Probability, and Probabilistic Modeling. He is published in leading journals, including his dissertation in Nature Communications and the Journal of Physical Chemistry.