How Augmented Intelligence, the other AI, addresses the digital "garbage in garbage out" reality and the life complexity!

"SMART STRATEGY" vs. "BIG STRATEGY"

The current "big" misunderstanding *(The must to read Presentation)***:**

- **The life sciences and medical research world reality:** *The life sciences mechanisms are complex*, not complicated. Based on Stanford *Metrics Research Institute* work, the life sciences and medical research past knowledge data sets cannot be trusted up to *85%.* With a clinical failure rate of *90-95%* (100% for Alzheimer's disease) it is clear that *the KOL concepts, Pharma are implementing in their R&D processes*, are massively not true. The correlations generated by AI are not the objectives, we need "cause and effect relationships".

- **The Artificial Intelligence reality:** These AIs are performant specialized algorithms only trained with **1) trusted past knowledge data sets** that 2) integrate the **current concepts/information the "top" KOL consider as true**. These AIs were tested and **3) successfully implemented in complicated specific problems**. These AIs generate correlations only that are generally enough for basic complicated business requests.

Two possible strategies to 'address" these critical issues:

1. Take the risk to continue with the current dominant thinking **"BIG STRATEGY"** investing massively in Artificial Intelligence and technology *alone* and to reproduce past failures "bigger"!
2. Take the chance to succeed with the **"SMART STRATEGY"** investing in Human Augmented Intelligence to address the complexity of life mechanisms and the "garbage in garbage out" reality with the use of specialized and correctly educated AI algorithms to address the numerous data intensive complicated tasks and analyses.

We decided at Bio-Modeling Systems to implement the *"SMART STRATEGY"* **in 2004**.

Profitable since 2006, thanks to our recurrent clients we succeeded. *CADI™ Discovery* is the world's first operational "**Computer Augmented Deductive Intelligence**" platform that natively combines Human Augmented intelligence and specialized Artificial Intelligence to generate robust heuristic models describing the complex mechanisms of the diseases.

Since 2004, we generated 14 successes independently validated by our clients/partners of which: 1 therapeutic spin-off in antibiotic resistance and 1 exclusive out-license in CNS, 4 issued patents, 10 publications, and an outstanding internal pipeline of programs at various stages ready for collaborations. Two new therapeutic programs in CFS-Low-grade inflammation and Metabolic Syndrome with Parkinson's disease as POC are ready for clinic validation.

Our 4 latest Business, Academic and Institutional recognition:

1. *December 4, 2018*. Louvain Belgium: Manuel Gea CEO & VP R&D IT of BMSystems is invited, as Keynote speaker, to present CADI™ Discovery platform and operational successes at

the "Artificial Intelligence for Health: between Dream and Reality" *BioWin Day* that gathers 600 participants organized by the BioWin life sciences and healthcare cluster in Wallonia.

2. *December 5, 2008*. France: Manuel Gea CEO & VP R&D IT BMSystems will be happy to meet potential partners during BioFit partnering event to present our latest innovations and diagnostic and therapeutic solutions.

3. *October 15, 2018*: BMSystems is the integrative biology partner of *GEMMA* (Autism & Microbiota) program selected for **14,2 M€ H2020 E.C. funding**.

4. *CADI™ Discovery cited* as the best practice in the "*Artificial Intelligence and Labor" report (page 76)* produced by *France Stratégie* (Prime Minister Service)

GEMMA has assembled a team of scientists from *EBRIS; Bio-Modeling Systems; Nutricia Research; Medinok; Euformatics; Theoreo; National University of Ireland Galway; Azienda Sanitaria Locale Salerno; Massachusetts General Hospital for Children (teaching hospital of Harvard Medical School); Consiglio Nazionale delle Ricerche; INRA; INSERM; Utrecht University; University of Tampere; Imperial College London and John Hopkins University.* Le projet a une durée de 5 ans et un budget total de 14,2 M €.

About Bio-Modeling Systems (BMSystems):

Bio-Modeling Systems, founded in 2004 and profitable since 2006, is with its operational *"Augmented Intelligence" CADI™ Discovery"* platform is the first and, to date, only company to successfully create in-silico heuristic models validated in-vivo. BMSystems' models have been built by its biologists using an integrated IT solution called CADI ™ (Computer Augmented Deductive Intelligence) and have led to discoveries and patents in the fields of infectious diseases, oncology, neurology, psychiatry, dermatology, immunology, metabolic disorders, innovative bioprocesses for industrial biotech and the creation of new companies exploiting these patents. BMSystems' models describe the biological phenomena involved in pathological states and provide novel mechanistic integrations to explain the cause of certain diseases, identify and select predictive biomarkers, offer new combinations of molecules and new therapeutic strategies, thereby contributing to the development of Mechanism-Based Medicine.Bio-Modeling Systems, the world's first Mechanisms-Based Medicine Company, generated 14 successes independently validated by our clients/partners of which: 1 therapeutic spin-off in antibiotic resistance and 1 exclusive out-license in CNS, 4 issued patents, 10 publications. Two new therapeutic programs in CFS-Low-grade inflammation and Metabolic Syndrome with Parkinson's disease as POC are ready for clinic validation.

We warmly invite you to download our Short corporate Presentation or our *CADI™ Discovery Concept and POCs Presentation.*

Do not hesitate to contact us for more information or any request.

Best regards,

BMSystems Manuel Gea CEO; VP R&D IT manuel.gea@bmsystems.net

*CADI: Computer Augmented Deductive Intelligence