



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 825033

WORLD AUTISM AWARENESS DAY 2023: To help clinicians and parents to better care for ASD patients, H2020 GEMMA European consortium members publish the world's first integrative model of ASD development, outlining the mechanisms and dynamics of ASD pathogenesis from pregnancy to early childhood.

PRESS RELEASE Paris April 2, 2023: On World Autism Awareness Day, we are proud to announce our 3rd publication completing the world's first integrative neurodevelopmental model describing the mechanisms and dynamics of ASD pathogenesis from pregnancy to early childhood.

For this special day, to help clinicians and parents to better care for ASD patients, we produced the ASD CADI™ pathogenesis model description. ([English PDF](#)) ([coming soon French PDF](#)). Do not hesitate to contact us for more information or for a ASD CADI™ pathogenesis model presentation.

Furthermore, to better manage the symptoms of patients with ASD, we are proud to announce that BMSYSTEMS' CADI-T2011 therapy for the alleviation of ASD core symptoms is ready for validation.

The first paper presents a novel mechanistic hypothesis on the interaction between the patient and its microbiome in ASD affected individuals: "[Autonomic Nervous System Neuroanatomical Alterations Could Provoke and Maintain Gastrointestinal Dysbiosis in Autism Spectrum Disorder \(ASD\): A Novel Microbiome–Host Interaction Mechanistic Hypothesis](#)" ([download pdf open access](#)).

The second article presents the integrative neurodevelopmental model that describes the mechanisms and dynamics of ASD pathogenesis from pregnancy to early childhood: "[Autism Spectrum Disorders pathogenesis: Toward a comprehensive model based on neuroanatomic and neurodevelopment considerations](#)"([download pdf open access](#)),

The third paper unravels the impact of epitranscriptomics in ASD pathogenesis by explaining how abrupt changes in environmental conditions in utero, such as those conferred by maternal inflammation/immune activation, influence RNA editing mechanisms, with the combination of these processes altering fetal brain development and leading to ASD phenotypes. "[RNA epitranscriptomics dysregulation: A major determinant for significantly increased risk of ASD pathogenesis](#)" ([download pdf open access](#)).

BIO-MODELING SYSTEMS, at the forefront of the necessary digital transformation of R&D processes, created CADI Discovery in 2004, successfully combining human and artificial intelligence, to generate unique heuristic non-mathematical models with the help of its Integrative biologists

With a world's first in the field of neurodegenerative diseases, [1 therapeutic start-up](#), and [the launch of Telesphore-Pharma](#), BMSYSTEMS' 2nd therapeutic start-up project in 2022, this announcement confirms the excellence of BMSYSTEMS in delivering value to patients and shareholders.

Created in 2004, profitable since 2006, thanks to our recurrent clients, BMSYSTEMS addresses two complementary business targets:

- For R&D, Translational Medicine & Digital Health Executives, we offer *robust alternative decision-making to de-risk, save time and costs* of R&D and Digital Health programs,



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- For Business Developers, Patients Groups & Investors, we discover *novel low-risk, highly effective and cost-effective* diagnostic, therapy, nutrition, cosmetic, bioprocess solutions for spin-offs or out-licensing.

We warmly invite you to [visit our new website](#) to discover our achievements in diagnostics, therapeutics, cosmetics, digital-Health and bio-processes.

Do not hesitate to contact us for more information or any business request. [Download our latest presentation](#).

About Bio-Modeling Systems (BMSystems):

Bio-Modeling Systems, founded in 2004 and profitable since 2006, is with its operational “**Augmented Intelligence**” CADI™ Discovery” platform the first and, to date, only company to successfully create in-silico heuristic models validated in-vivo that 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 Assisted Deductive Integration) 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 Parkinson’s disease are ready for clinic validation.

For more information and access to presentations & publications, please visit <https://www.bmsystems.org>.

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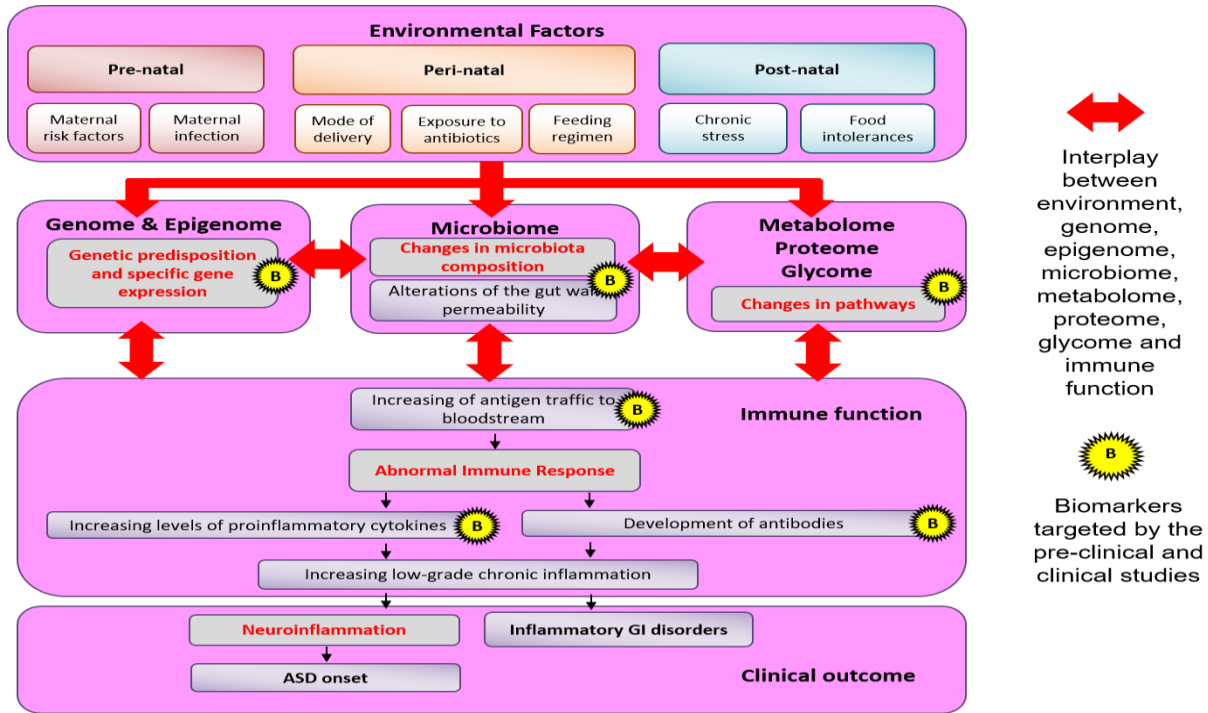
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GEMMA PROGRAM



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