



Press release :

“BioXplain”: The First Open Platform for Iterative, Predictive and Integrative Biology.

Paris, France and Namur, Belgium, May 12th 2009.

Three complementary bioinformatics companies, Bio-Modeling Systems, BioXpr SA and Kayentis, are delighted to announce that they are joining forces to set up a new analytical R&D platform, *BioXplain*. That platform will help the life sciences companies to run smarter, cheaper and safer R&D programs.

The *BioXplain* Platform will be presented at BiO in Atlanta. Meet the three founding companies on May 20, 2009, 4.00 pm, Room 316, for the *BioXplain* presentation.

Despite booming pharmaceuticals R&D expenditures, the drug attrition rate has unabatedly increased over the last 20 years or so. Several international initiatives, such as the EFPIA IMI, have uncovered important bottlenecks in the R&D continuum, in particular predictive pharmacology, toxicity and lack of relevant biomarkers, that contribute to continuously worsen an unacceptable trend.

In order to rapidly reverse this trend, one needs to profoundly revise the current R&D process and adopt new and innovative approaches to better valorize the ever-expanding amounts of heterogeneous datasets generated and uncover the non-linear mechanisms of life and diseases to efficiently design better medicines and treatment strategies.

The founding companies' shared values and biological backgrounds, the perfect fit of their complementary technologies and customers' typologies within companies, create *de facto* a ground-breaking platform in the field of predictive integrative biology.

Manuel Gea, Co-founder & CEO of Bio-Modeling Systems comments: *“ We are very excited at the prospect of proposing our CADI™ molecular maps within the BioXplain environment. We are confident that this new concept will help the pharmaceutical industry to treat the actual causes of diseases rather than the symptoms, as has so often been the case, particularly in cancer and CNS diseases for instance”*.

Dr. Benjamin Damien, Co-founder & CEO of BioXpr SA adds: *“The Iterative nature of the BioXplain platform will enable the continuous intake of experimental and literature data in order to fine tune the CADI™ molecular maps and deliver faster desperately needed new first-in-class drug targets, relevant predictive efficacy and safety biomarkers and new synergistic drug treatments”*.

Philippe Berna, Co-founder & CEO of Kayentis concluded: *“The work already achieved in deciphering new signaling pathways and in proposing possible new treatment approaches, in oncology for hRas-dependent breast cancer progression and in CNS with Creutzfeldt-Jakob disease for instance, paves the way for other important future breakthroughs within these 2 classes of pathologies. We are sure that our unique Clinform’*

platform will contribute to a larger and better use of research, preclinical and clinical datasets in the R&D process, especially for translational medicine”.

Bio-Modeling Systems, Paris, France. BMSystems is a research-based biotech company that creates CADI™ (Computer Assisted Deductive Integration) models to harness & explain the non-linear mechanisms of life and diseases, thus reveal “pertinent” biomarkers & therapeutic targets.

- BMSystems published in 2003 the world’s first *in-vitro* independently validated in-silico model of a complex human disease, hRas-dependent breast cancer progression, with INSERM Unit 553.
- BMSystems completed the first complex human disease (Creutzfeldt-Jakob) CADI™ model validated in *vi-vo* with CEA Life Sciences Dept
- CADI™ methodologies and tools, based on negative selection concepts, were invented in 2002 by Dr. François Iris, founder, Chairman and CSO of the company.
- CADI™ models belong to the non-mathematical holistic and heuristic class of models. They can describe the dynamics of a pathological process and/or the pathological mechanisms vs. control.

CADI™ modeling approach has repeatedly allowed researchers to take the best possible decisions for the best possible results in a minimum of time and resources.

BMSystems’ current achievements, in addition to multiple publications:

- 8 CADI™ models produced in 5 major medical areas, (CNS/ PNS, Oncology, Infection / Immunology, Tissue differentiation, Metabolism),
- First complex human disease (Creutzfeldt-Jakob) CADI™ model validated *in vi-vo* with CEA Life Sciences Dept Fontenay-aux Roses
- 1 patent in “psychiatric disorders” in collaboration with CEA Life Sciences Dept,
- 3 patents filed in “therapeutics for infectious diseases” and “nanobiotech”,
- 2 technological platforms (pre-clinical evaluation for psychotropic molecules and industrial biotech),
- 1 operational spin-off in Biodefense/Biosecurity (infectious threats),
- 2 bacterial strains under development for “Synthons”, the major industrial biotech collaborative R&D program in France,

The company generates highly attractive businesses, through contractual/collaborative research programs, and is active in the following markets: Pharma-Biotech, Energy - Chemicals – Environment and biodefense-biosecurity-nanobiotech with its spin-off Pherecydes-Pharma.

BioXpr SA, Namur, Belgium, offers state-of-the-art bioinformatics and biostatistics solutions to collect, store, extract, analyze, compare and translate in value-added knowledge the ever-expanding amount of data generated by today’s high-throughput experiments, clinical trials, bio databases and literature. This creates an unmatched high-level business intelligence solution for the pharma and the other Life Science R&D sectors.

BioXpr delivers cross-discipline/transversal software tools integrating and combining literature and experimental data and by doing so plays an instrumental role in helping its customers:

- to set up analysis pipelines or datawarehousing facilities,
- to detect, predict and monitor multi-component biomarkers for predictive and translational medicine,
- to predict drug candidates efficiency / toxicity on the basis of gene expression and/or activated metabolic pathways
- to design tools and approaches for personalized medicine,
- to build custom, R&D information systems to assist the decision-making process

Kayentis, Paris, France, is a provider of innovative data and real-time information, un-biased capture and safe collection solutions.

Built on the Forms Automation System (FAS) architecture, developed by Hewlett Packard, which brings together flexibility, security and robustness, Kayentis' solution, *Clin'Form* (DPP: Digital Pen and Paper technology) optimizes data and information collection, both qualitatively and quantitatively, and processing solution, by equipping all the pharma R&D and post-marketing actors (researchers, laboratory benchworkers, physicians, and patients) with a simple and innovative tool: digital pen and smart paper. Fulfilling the requirements in terms of regulation, traceability and data security, Clin'Form ensures data capture, gathering, dispatch, processing, sharing and full traceability via secured web portals.

Clin'Form offers the ease of paper data collection combined with all the benefits of the Electronic Data Capture (eDC) approach (accurate timestamps, audit trail functionalities, real-time access, alerts, etc.)

For further contacts:

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