CONTACT

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Dr. Bill Mason, Director
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COMPANY OVERVIEW

Industry: AI for Healthcare
IP Status: Filed/Granted
Seeking: Global Partner
Progress: In revenue

MANAGEMENT TEAM

Simon Haworth, CEO
Simon is a serial entrepreneur whose experience includes technology innovation and investment in Cambridge UK, Boston USA and Wuhan China. Former founder of listed investment company IPSO Ventures PLC.

Graham Ball, CSO
Graham is a world-leading expert in artificial intelligence in healthcare. He leads the development and use of the INTELLIGENT OMICS ANN technology. He has over 25 years' experience of mathematical modelling and bioinformatics discovery with big biological data.

Dr. Bill Mason, Director
Bill gained his PhD in medicine and physiology from Univ of Cambridge. He has founded several high technology life science companies and sold these to global corporates in pharma, drug discovery, diagnostics and regenerative medicine. He has conducted over 80 transactions in healthcare and life sciences, working with a portfolio of quoted and unquoted life science companies.

INVESTORS

BRAVEHEART INVESTMENT GROUP
NOTTINGHAM TRENT UNIVERSITY
Mobius CAPITAL PARTNERS
Lachesis Fund

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Intelligent OMICS Ltd ("Intellomx") is a spinout from Nottingham Trent University, founded on the use of proprietary, patented biomarker and systems biology discovery tools.

Intellomx is at the forefront of `machine learning' for *in silico* biological discovery, identifying critical biological features such as molecular biomarkers, drivers of disease and therapeutic targets. Intellomx has developed a new approach called Intuitive Informed Intelligence (I3) based on artificial intelligence (AI) and machine learning technology. Studies undertaken over the last two decades have shown that these non-linear discovery tools are highly suited to the analysis of complex biological data. Intellomx uses novel, intuitive and IP-protected AI to discover and interpret complex data from millions of results generated expensively in wet labs. The resulting output is a very small number of highly prioritised new drug and diagnostics targets for our clients and partners.

Intellomx's mission is to identify novel drug candidates and validated biomarkers, generating a stream of new diagnostic and therapeutic products for commercial development.

INTELLOMX – A NOVEL APPROACH FOR BIOMOLECULAR DISCOVERY

Intellomx has developed cutting edge systems biology and bioinformatics approaches, based on computational intelligence, which identify robust nonlinear biomarkers associated with clinical features concordant across multiple data sets. This has allowed the study of interactions between key features in the context of a given problem. These approaches in effect determine the level of influence of a set of driver markers in a given biological system, allowing determination of the molecular drivers of a system to yield a given phenotype.

INTELLOMX CORE TECHNOLOGY

The Intellomx technology approach is well-developed and proven; it consists of a patented software-based data analysis system, and a portfolio of patentable outputs from that system. The system replaces expensive *in vitro*, lab-based experimentation with rapid, low cost '*in silico'* data analysis on high-speed computers. The analysis method mimics human neural networks, using a system devised over 18 years and fits multiple non-linear models to complex datasets. In an analysis of a typical clinical trial dataset, the algorithm may systematically evaluate and fit as many as 50 million models per hour in order to identify which genes, proteins or other markers can be used to explain variation in the data.

INTELLOMX OFFERS A PLATFORM FOR NEW ACCELERATED BIOMOLECULAR DISCOVERY

Because the analysis does not rely on testing of a prior hypothesis but instead assesses the information in a clinical dataset, Intellomx can identify a number of markers not previously associated with a particular disease – providing significant new biological understanding and a path for new drug and diagnostics development. The markers together form a panel of biomarkers that can be used in patentable diagnostics, and the novel markers can be used as new drug targets in drug discovery.

INTELLOMX IN PRACTICE

Intellomx expertise can be used to rapidly (2-4 weeks) screen large numbers of protein or transcriptomic biomarkers, using non-linear *in silico* methods to identify biomarkers that address biomedical, physiological and clinical questions in molecular data. The approach can also identify and validate new molecular drivers associated with clinical physiological features, specific to the disease being analyzed. The markers identified have been validated in extensive cohorts and shown to have excellent biological relevance with high sensitivity and specificity.

The Intellomx approach allows systematic screening of millions of molecular combinations and interactions per hour, without the need for extensive, exploratory wet lab discovery time and costs.

INTELLOMX OUTCOMES AND APPLICATIONS

The outcomes of the analysis mean that new and targeted diagnostic and predictive techniques can be identified which will lead to new diagnostic tools and improved therapies. The technology can be applied wherever there are suitable data sets such as transcriptomic expression arrays, RNASeq, Nanostring, Proteomic and Genomic data.

INTELLOMX USPS

Intellomx has developed a set of proven advanced data analysis tools that identify new molecules (drug candidates) and diagnostic predictive biomarkers from healthcare 'Big Data'. The company has novel IP-protected algorithms and processes and can offer fast turnaround times due to algorithm efficiency and computational power. Intellomx technology fits multiple models to highly complex datasets to identify which factors govern a particular disease or predict disease state.

INTELLOMX PROVIDES UNPARALLELED VALUE TO ITS CLIENTS

Intellomx technology provides the opportunity to generate and validate a large number of novel proprietary biomarkers and new drug and diagnostics candidates through *in silico* prototyping, at low input cost. Our partners also benefit from our access to public and proprietary data bases (precompiled and ready to analyse), a network of clinical groups and leading domain knowledge sources earned from our leadership role in healthcare AI.

INTELLECTUAL PROPERTY

Intellomx has secured a family of global IP for the use of AI in novel biomolecular discovery. The Intellomx system is projected to generate six major new pharma/med tech patents per annum.

HOW WE WORK

Intellomx offers both a direct fee for service option as well as a shared IP/partnership option.

CONTACT US NOW!

For additional information, and to schedule a meeting or presentation, please contact:

Dr. Simon Haworth on +44 (0) 7802 183555 simon.haworth@intellomx.com or
Dr. Bill Mason, on +44 (0) 7785 950134 bill.mason@intellomx.com

The healthcare market recognizes that we must base the creation of new drugs and diagnostics on analysis of healthcare big data, but doesn't yet know how. Intellomx provides that capability.