



 White Paper

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# INFOHaem<sup>®</sup> Molecular Screening Services

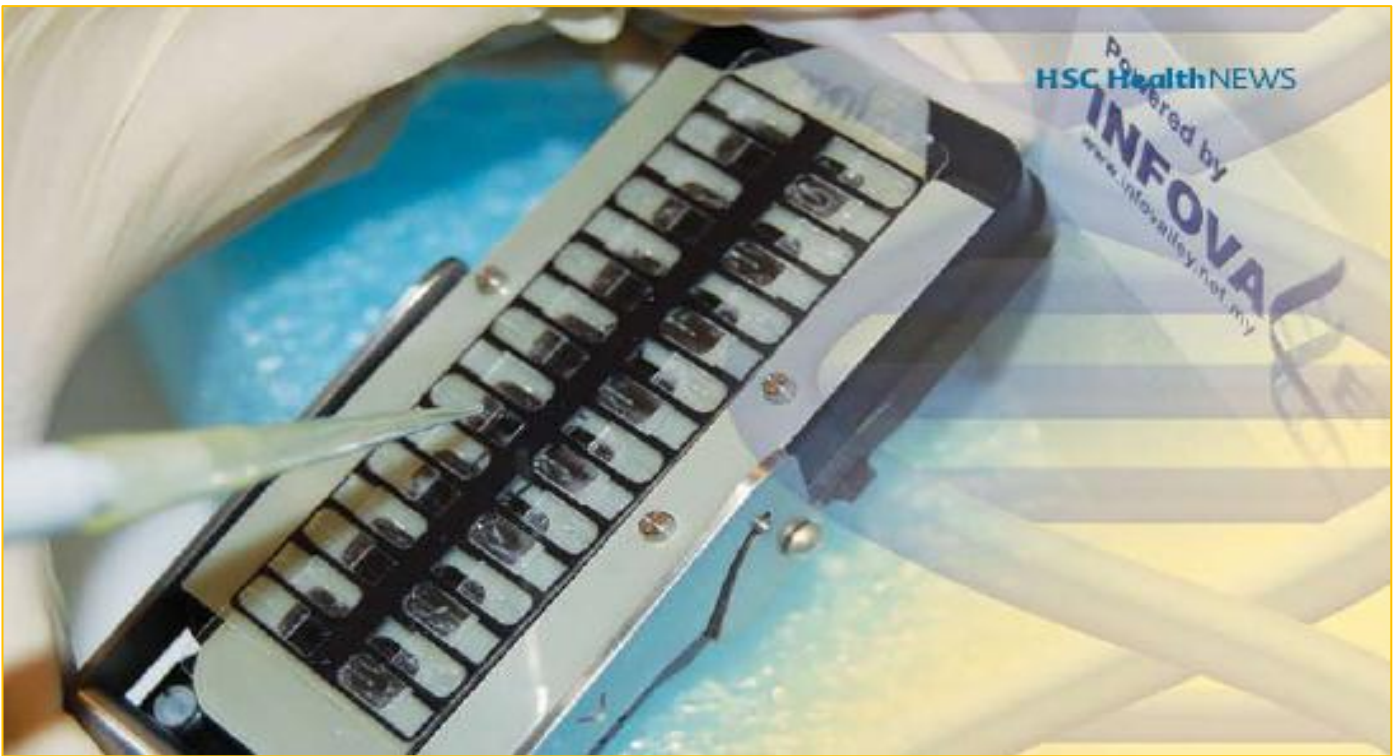
## MARKET SUCCESS AND CHALLENGES 2011

The year 2011 has been exciting for INFOVALLEY<sup>®</sup> as this is the year INFOHaem<sup>®</sup> Molecular Screening Services set its foot in the Malaysian market. Molecular Screening Services started in the second quarter of year 2011. Within 8 months of introduction to the market, INFOVALLEY<sup>®</sup> managed to meet its sales expectation in Malaysia. This is a proud achievement for INFOVALLEY<sup>®</sup> considering Molecular Screening Services market is non-existent before and we are still striving to establish INFOVALLEY<sup>®</sup>'s name in the healthcare sector.

### WHAT IS INFOHAEM<sup>®</sup> MOLECULAR SCREENING SERVICES?

INFOHaem<sup>™</sup> Molecular Screening Services is the 'new age' molecular tools of tomorrow's healthcare system. It is an examination of a subject's genetic makeup to establish the subject's genetic predisposition, diagnosis, prognosis, pharmacogenomics of certain diseases such as Familial Hypercholesterolemia, Cancer, Hepatitis, Cardiovascular Diseases (Ischemic Heart Diseases, Hypertension), Diabetes Mellitus and Chronic Renal Failure.

INFOHaem<sup>™</sup> Molecular Screening technology is based on the cutting edge DNA Chip/ Microarray Technology. A single microarray chip can accommodate up to 1 million probes which allow interrogation of up to thousands of genes simultaneously, and hence enable parallel analysis of complex metabolic pathways and systems. This allows for effective mapping of genomic to phenomic manifestation (with clinical implication) of diseases, thus enabling the clinicians to establish the molecular basis to clinical condition. When related molecular indicators are detected early, potentially life-saving medical management can be implemented and this will lead to specific interventions aimed at reducing risks, which includes adjustment for nutrition, lifestyle and environment setting. Therefore, such molecular Pre-emptive Tool is relevant in the expanding field of Screening/ Diagnostics/ Prognosis where health is moving away from procedural biochemical/pathology tests and firefighting therapies to a stealthy march towards rapid molecular based predisposition screening, preventive health and wellness.



## MARKET CHALLENGES

The success of Molecular Screening Services comes with many challenges. First and foremost, INFOVALLEY® is very young in the healthcare industry. The current healthcare sector has been crowded with big players and adding another name to the list is definitely tough for new player like INFOVALLEY®. The name INFOVALLEY® has raised many doctors' eyebrow as nobody has heard of this company nor the term Molecular Screening Services. Getting an opportunity into doctor's consultation suite is the first challenge as rejection could start at this point. Nurses or nursing aides of doctors can be the gate keeper. This is quite normal as human like to see familiar name cards and faces. Hence, being new and unknown will add more disadvantages. However, constantly showing the face will do the trick.

A higher degree of challenge starts at doctor's level. There is plenty of debate and arguments over the usefulness of information that this screening provides. Is Molecular Screening Services doing a service or disservice to the community by introducing disease predisposition screening? Do Molecular Screening Services want to add unnecessary anxiety to people's lives? Is there such a need for a test to motivate a healthy lifestyle? Can the test change the patient management in the case of Familial Hypercholesterolemia? Is the act of looking at one's genetic code equals to trying to play god? The list goes on and on.

**Molecular Screening**  
Targeting at healthy individuals

## DOCTOR'S PERSPECTIVES

If we were to look further and analyze the questions posed by the doctors, there are primarily three reasons to their negativity:

- I. Doctors are not trained in treating diseases from the perspective of molecular biology. Genomics is a brand new domain with too overwhelming knowledge to explore never mind to master it. They would, at the most, mention genetic factor plays a part in disease manifestation but will not elaborate further on that. "More research is required to confirm the link" has become almost the standard statement even on radio interviews. They are very comfortable doing what they have been taught in medical school: diagnose and treat the sickness at the clinical level.
- II. Doctors prefer to stay in comfort zone. Dealing with healthy subject is trickier than handling sick patient. Doctors need to spend more time explaining Molecular Screening Services's Clinico Molecular Report (CMR) to healthy subjects than sick patient as he is focused on the illness only rather than talking about personalized healthcare to the healthy ones. In addition, specialist doctors perceived themselves as doctors who are specially trained in treating certain diseases. The very reason to be a specialist is to distinguish themselves from the "normal" doctors. Hence, seeing healthy subjects does not make too much sense.
- III. Doctors want to be follower. Some doctors prefer to see their peers take the lead and observe if they are successful in doing this new business. They hold the "wait and see" attitude as they are not willing to be the leader. Besides, they have done their math; the time spent in pre-screening and post-screening consultation is not worth the effort as they can make equal or more money from seeing sick patients. Furthermore, staying away from Molecular Screening Services also makes them free of worry that one day, a healthy subject may come back and question the credibility of the doctor that he is down with cancer but his previous CMR shows that he is at mild risk.

## DOCTOR'S CHALLENGES

The challenge is to shift the perspective of providing healthcare services to not only patient, but also to healthy individuals

Despite pessimism from a lot of doctors, this pessimistic view does not represent the ultimate consensus from the entire doctors' community. With persistence, INFOVALLEY® managed to identify doctors who are believers of Molecular Screening Services and this has brought optimism to the business in Malaysia. INFOVALLEY® strongly believe that the general public will be thrilled with the fact that not only we are able to analyze a section of DNA and conclude if he or she is predisposed to certain diseases, we can now make sense of what these DNA codes mean.

### MOLECULAR SCREENING SERVICES BUSINESS MODEL

The business of genetic testing comes in different models and INFOVALLEY® has chosen B-to-B (Business to Business) model. This model may take a longer time to realize the business in Malaysia but INFOVALLEY® believe this is a better approach compared to other Direct-to-Consumer (DTC) models where no doctor is required for any consultation. Anyone can send sample of saliva where DNA is extracted and analyzed strictly on the DNA profile without considering the other aspects of a person's life; a single perspective approach. This is a huge contrast to INFOVALLEY® Molecular Screening Services approach, of which the test serves to empower the doctor. Many aspects of a person's life is taken into account for example family history, clinical history, diet, social history, medical history; in addition to DNA examination. This multi-perspective approach makes the screening more comprehensive and is not skewed towards either DNA or clinical aspect alone since most diseases are multi-factorial.

With this business approach, INFOVALLEY® has the opportunity to become service provider to many hospitals and become part of the healthcare system. INFOVALLEY® has brought new meaning to the term "healthcare" to the current healthcare sector. Healthcare should apply to healthy individuals but hospitals and medical professionals use this term for treating the sick which INFOVALLEY® terms as "sick care". The nearest to INFOVALLEY® definition of healthcare is found in health screening centre of hospital. The new meaning of healthcare is constantly shared with many medical professionals but this new concept will take some time before it can be adopted by all these professionals.



“Healthcare that’s **Right** for the healthy ones”

Molecular Predisposition Screening for disease can ascertain if a disease risk-associated or protective genetic variant is present. By combining the molecular and clinical data, a risk profile can be established. This is the basis of Clinico Molecular Report. The risk profile will assist the consulting physician in drawing up a personalized counseling, intervention, and risk management strategy.

## ABOUT INFOVALLEY

INFOVALLEY® is an integrated life sciences technology company. Founded in Year 2000, the company focus in the design, development, validation and commercialization of high density molecular diagnostics kits focusing on human genetic diseases based on a high throughput DNA microarray platform technology,

For more information, kindly refer to [www.infovalley.net.my](http://www.infovalley.net.my)

## MARKET SUCCESS AND FUTURE ROADMAP

In spite of the least amount of receptiveness received about Molecular Screening Services, INFOVALLEY® managed to maneuver its way in getting the business deal from HSC Medical Centre. HSC Medical Centre is the first hospital that sees the value of the test and its potential business opportunity. On top of that, they have the zeal and strive to make Molecular Screening Services a success in their hospital. Whether their success is a combination of good strategy and dedicated staff or pure luck, their success has become the success for INFOVALLEY®. This serves as a great reference for INFOVALLEY® to further expand the business.

INFOVALLEY® took HSC Medical Centre model, modify and try to replicate in other hospitals. The second hospital that takes up MSS is Tropicana Medical Centre at the end of year 2011. INFOVALLEY® also has signed a business collaborative agreement with Pantai Premier Pathology Laboratory to become INFOVALLEY®'s "agent" for all Pantai network hospitals. This model is different from HSC Medical Centre and Tropicana Medical Centre with the objective that sales conversion can be achieved faster from all the different branches inside all Pantai hospitals. Many Continuous Medical Education sessions has been conducted in various hospitals, However much need to be done before the actual Molecular Screening Services business can realize in Pantai hospitals throughout the country. The emphasis is on flagship hospital which is Pantai Hospital Kuala Lumpur. Now that INFOVALLEY® is able to establish its name in a few hospitals, it will be our commitment to continue to identify Molecular Screening Services believers and to convert the existing Molecular Screening Services believers into Molecular Screening Services evangelist eventually. This would take a long time to achieve; nevertheless, the effort is worth spending.



**INFOVALLEY® Group of Companies**  
Unit 3&4, Level 7, Block C,  
MINES Waterfront Business Park  
No.3, Jalan Tasik, MINES Resort City  
43300 Selangor, Malaysia  
Tel: +603 8938 2126  
Fax: +603 8941 5970  
URL : [www.infovalley.net.my](http://www.infovalley.net.my)