



2011 Annual General Meeting

24th November 2011

Mr Lou Panaccio
Executive Chairman

Overview



❑ Objective:

- Develop compelling multiplexed test solutions for the \$3.5BN global molecular diagnostic testing industry using our microsphere based AmpaSand technology platform.

❑ Products developed to date:

- Pap Type™ HPV detection and genotyping kit (TGA, CE-IVD)
 - Projected Global Market \$500M+
- RTI-plex™ Respiratory pathogens test
 - Projected Global Market \$200-500M

❑ Pipeline products:

- STI-plex™ and Gen-plex™ for sexually transmitted infections
 - Projected Global Market \$350-500M

❑ **Molecular Diagnostics (MDx):**

- The use of information derived from nucleic acids (DNA and RNA) to diagnose disease.
- The objective is to test for specific states of health or to see if disease exists.
- Fast growing business made possible by the understanding/mapping of the human genome.
- Makes it possible to detect infectious disease and cancer more accurately and at an earlier stage than ever before.
- Healthcare paradigm shifting from being reactive towards proactive or preventative.
- Practice of medicine is changing progressively in favor of more precise and more effective molecularly guided and targeted treatments.

❑ **Multiplexing:**

- Combination multiple tests into single reaction.
- Multiplexing can:
 - Increase the amount of information from a single specimen and reaction
 - Reduce the time and resources required to generate required results
- Automation is the key.

Overall Market Size

Table 4.2: World Market for Molecular Diagnostics, 2011 - 2015 (\$M)*

	2011	2012	2013	2014	2015
Blood Screening	918	1056	1215	1397	1606
HIV/HCV Testing	847	915	988	1067	1152
STD Testing	546	611	685	767	859
Oncology Testing	488	576	680	802	947
HPV Testing	353	406	467	537	617
Hospital Infections	116	136	159	186	217
Genetics	480	557	647	750	870
Total	3,748	4,257	4,841	5,506	6,268

* Business Insights Ltd 2010

World Market HPV Testing



HPV Market Segment

Table 4.6: Molecular Diagnostics HPV testing market, break up by competition (\$M)*

	2011	2012	2013	2014	2015
Digene HPV (Qiagen)	282.3	284.0	280.0	268.3	277.7
Aptima (Gen Probe)	15.0	40.6	70.0	107.3	154.3
Quest HPV Test	16.1	17.8	19.5	21.5	23.6
Cervista	24.7	32.5	42.0	53.7	74.1
Others	14.7	30.9	55.1	85.8	87.4
Total	352.8	405.8	466.6	536.6	617.1

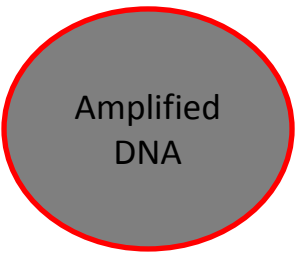
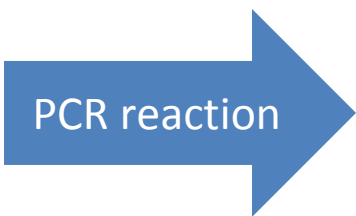
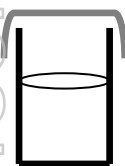
** Business Insights Ltd 2010*

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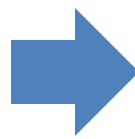
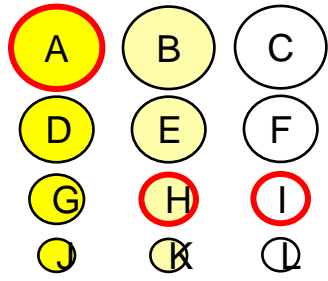
The AmpaSand Process

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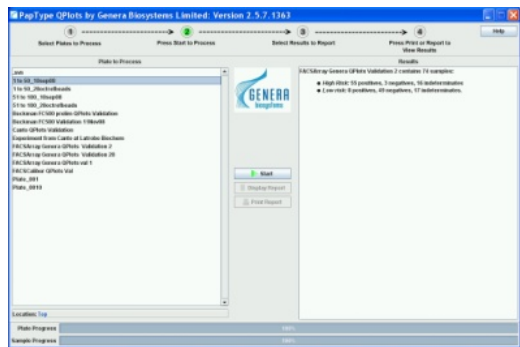
Patient specimen containing unknown pathogens



AmpaSand beads bind to their cluster specific target in the amplified DNA

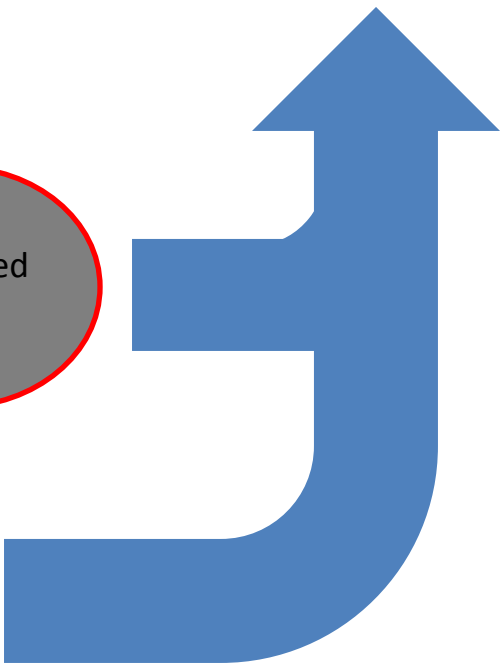
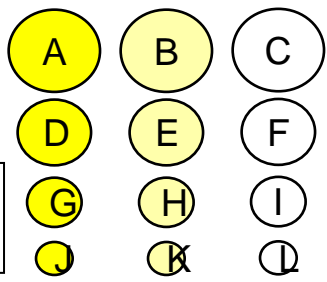


Bead size and colour "read" by Flow Cytometer



QPlots data readout

Unhybridized coded beads



Achievements



☐ TGA approved manufacturing facility - Scoresby

☐ Pap Type:

- TGA-approved and CE-marked.
- UK Clinical Trial confirms performance and competitive position with market leader.
 - Prestigious Researcher and Institution.
 - 1066 specimens.
 - Paper to be published in 2012.
- Solid Phase version developed to address operational efficiency.
 - UK Clinical trial will be updated.
- Used extensively at RWH in numerous clinical trials.

☐ RTI-plex:

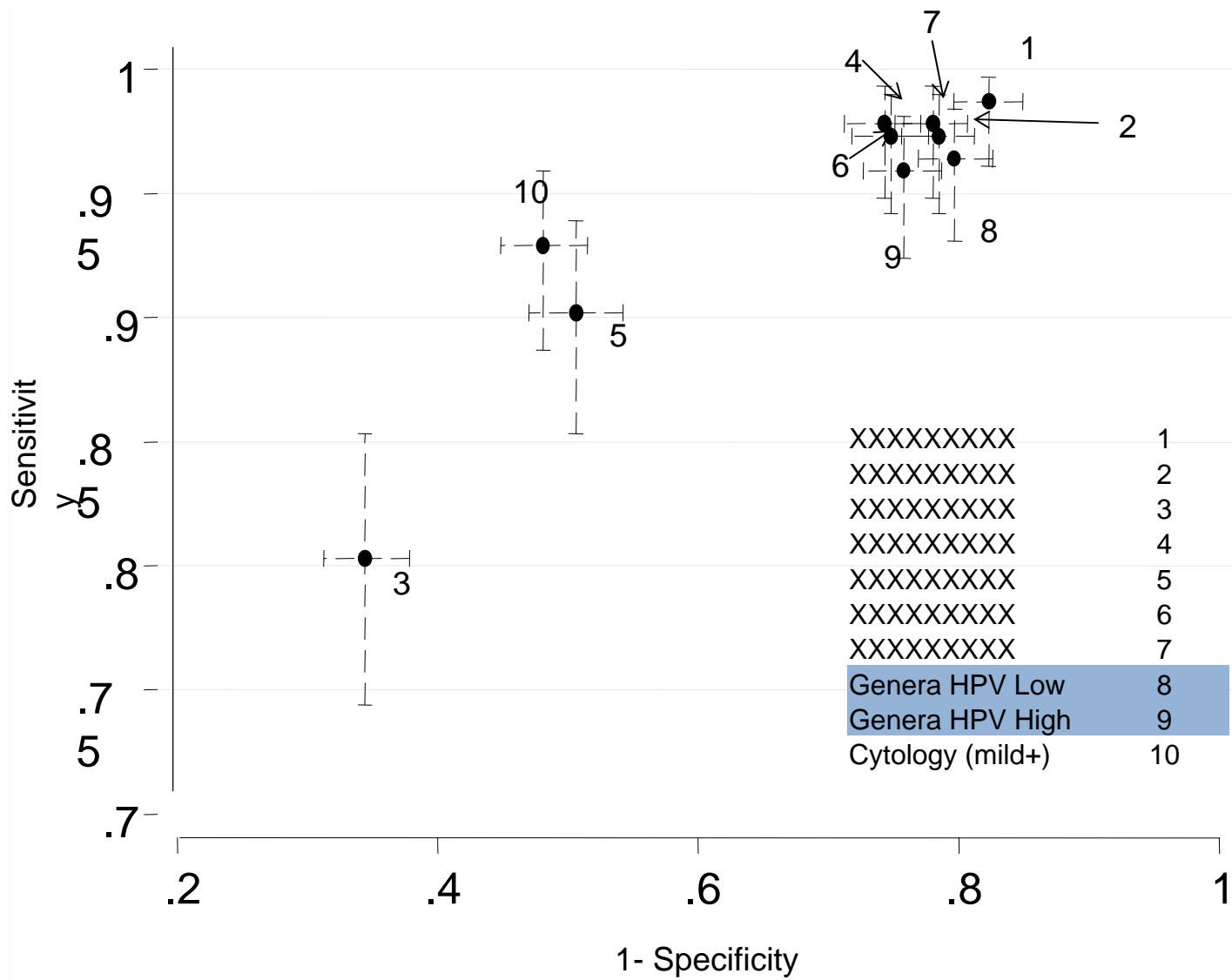
- Developed in collaboration with Healthscope.
- Development milestones and targets achieved.
- Contract payments received.
- Working towards 2012 influenza season (April 2012).
- Presentation to NUH Singapore.

Achievements



- ❑ **Automation - Project Sirocco:**
 - Low Cost Proof of Concept (~\$200K)
 - Integrated 'Off The Shelf' components:
 - Tecan Plate Washer
 - Hudson Plate Crane
 - Intellicyt Plate Sampler
 - Accuri Flow Cytometer
 - Used for PapType and RTI-plex.
 - Engineering and Software Development.
 - Prototype installed and tested by end December 2011.
 - Use to engage with prospective IVD 'partners' and diagnostic laboratory customers.
- ❑ **Patent Protection:**
 - Extensive
 - Core patents granted in all major jurisdictions
- ❑ **Significant cost reduction plan implemented in July 2011**

Summary graph - Detection of CIN3+



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Summary



- ❑ Genera has shown that its **Ampasand** platform can be used to successfully develop diagnostic tests that can compete in the burgeoning multiplexed MDx market.
- ❑ **Project Sirocco**, funded from available cash resources, will provide Genera with a low cost automated platform to engage with prospective IVD partners and/or diagnostic laboratory customers.
- ❑ Possible **Commercial Outcomes**:
 - IVD Company acquires Genera
 - IVD Company acquires:
 - Ampasand Platform
 - PapType and/or RTI-plex
 - IVD Company and Genera develop JV
 - Genera installs 'Sirocco' in diagnostic laboratories and sells PapType and/or RTI-plex
- ❑ **Focus** to end April 2012 will be:
 - Completion of Project Sirocco
 - Targeted approach to IVD companies and exploring commercialisation options
 - Demonstration of Sirocco to diagnostic laboratories
 - Update of UK clinical trial
 - Readyng RTI-plex for 2012 influenza season



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