



LBT INNOVATIONS



AusBiotech 2010 National Conference

Developing Award Winning Medical Devices

Lusia Guthrie, CEO and Managing Director

ASX Code: LBT
www.lbtinnovations.com

LBT Innovations overview

We are innovators - we identify the problem, propose a solution and develop the technology and commercialisation strategy to bring solution to market

Target market - clinical pathology labs worldwide

MicroStreak - breakthrough technology for agar plate inoculation & streaking

Exclusive worldwide licence agreement with bioMérieux, a world leader in diagnostics for infectious disease testing

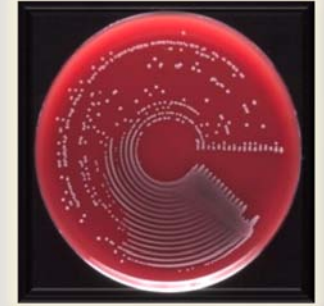
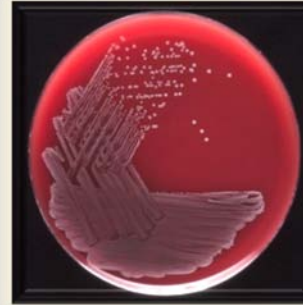
PREVI Isola launched Dec 2008 - sales achieved in Europe, USA, Asia, Australia

Milestone payments and royalties initiated

Promising next innovative technology under development

MicroStreak / bioMérieux PREVI Isola

- Designed for microbiology labs worldwide
Standardised agar plate inoculation & streaking
Fully automated system
High throughput, simple to use
Patented single-use streaking applicator
- Superior results:
- higher yield of bacterial colonies
 - identifying cases missed by traditional methods
 - reduction in patient length of stay



Traditional manual agar plate streaking Vs MicroStreak® Technology (on the right)



MDEA 2010 Gold Award



9th June 2010, Javits Convention Center, New York at the MD&M East Industry Show

L-R: Charles McCurdy, Chairman & CEO Canon Communications; Dr Fred Davis, Managing Director, Invetech; Lusia Guthrie, CEO & Managing Director LBT Innovations; Doug Flammang, V-P Core Microbiology Business, bioMérieux.

Collaboration for success



Inventor, innovator, entrepreneur
Design & fund the venture from
concept to commercialisation

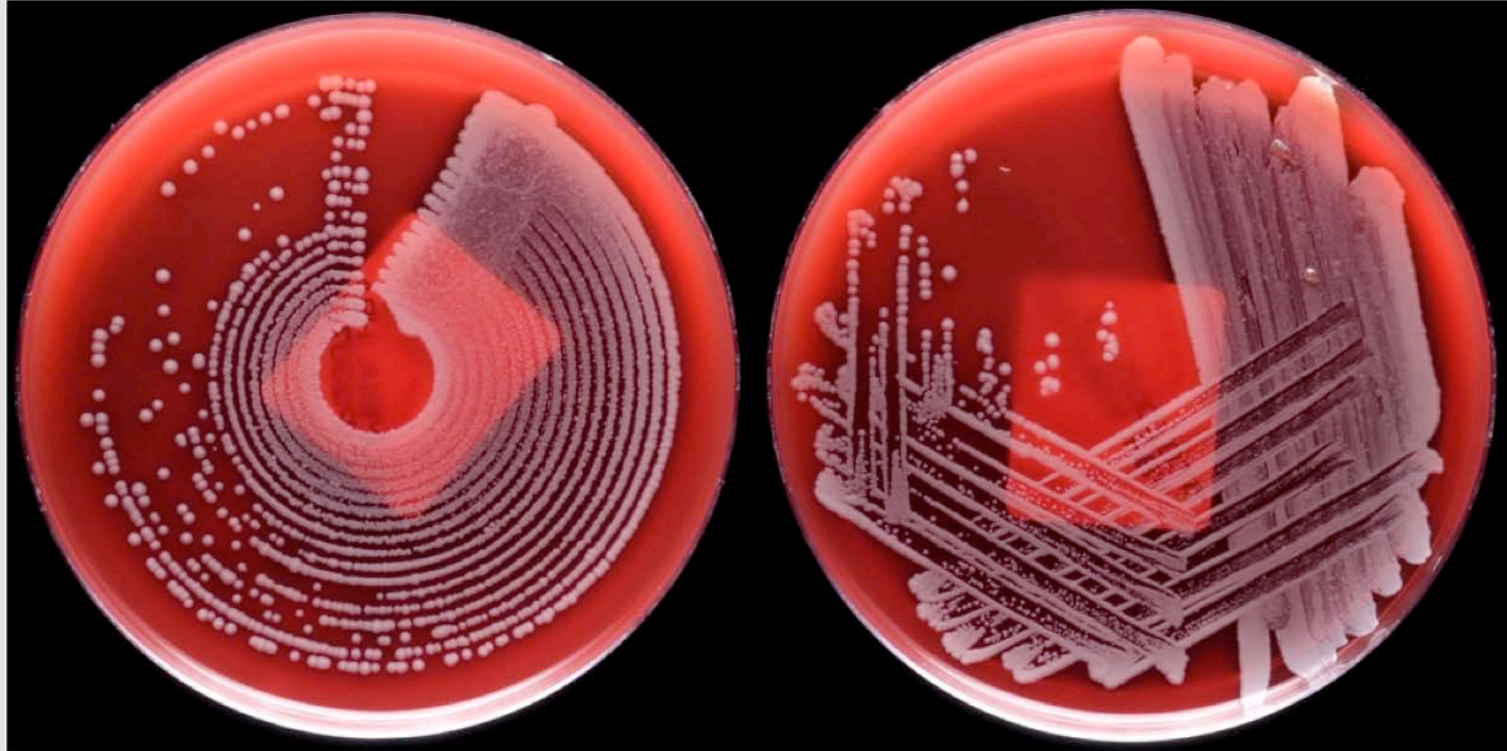


Innovator
Contract design & development
MicroStreak



Global IVD company
LBT's licence partner
for
MicroStreak / PREVI Isola
ongoing manufacture,
marketing & distribution
and
line extension products

LBT MicroStreak Vs. Traditional streaking



MicroStreak patented system



PREVI Isola – why award winning?

Suite of patents:

- Novel MicroStreak applicator
- Novel plate handling
- Novel robotics

Novel design approach:

- Contamination control
- “Liquid microbiology”

Design challenges:

- Resistance to change
- Traditional methods
- Manual, labour-intensive
- Initial hesitation by lab staff
- Lack of standardisation of specimen containers, agar plates etc



Opportunity: microbiology testing from this.....



.....to this?

Current challenges for microbiology:

- Long time to results and treatment
- Reduce cost per test, per patient
- Increasing lab workloads
- Shortage of skilled staff
- Labour-intensive methods
- Lack of automation offerings
- Micro labs take up lots of space



Disciplined approach to take creative ideas to market

Identify the opportunity:

- Articulate the need in the market place i.e. for doctor, patient, lab staff
- Understand why that need is not being met

Have an intimate understanding of the end-user and their needs:

- Laboratory workflows
- Current methods and processes
- Required quality standards and regulatory environment
- Clinical reporting requirements
- Understand lab buying decision and purchasing process

Business model:

- How will the money flow through the entire venture?
- How will we LBT make money from the invention?
- How will bioMérieux make money – what is the technology worth *to them*?

Does it make sense?

Technical feasibility assessment

Commercial viability assessment

Do the math:

- What investment is required for the venture?
- What ROI for LBT shareholders?
- What ROI for the target client?

Selling price Vs development costs:

- Acceptable selling price, what ASP will the market bear?
- Advise engineering of target COGs assumed in business model
- Can the product be built for that price?

Check the product concept – and claims - in the marketplace:

- Engage key opinion leaders at home and abroad

Before we design the product....

Propose the technology to effect the solution we have in mind

Develop the plan for targeted research

Test the product concept with clinical decision-makers

Develop early stage prototypes: small-scale engineering + clinical studies

Product development – select engineering partner (key!)

Manufacturing strategy

Pre-production prototypes

Clinical trial & validation

What other factors influence design?

Regulatory landscape:

- Intended use
- Product claims
- Design the product that has the least regulatory burden
- Consider MkI with low barrier to entry, then fast follow-on MkII

IP landscape:

- Freedom-to-operate - inform engineers, consider workaround

Design for the features and benefits that matter:

- **Know your competitive advantage!**

Manage the budget:

- Balances and trade-offs: budget Vs. sexy engineering challenge
- Solve the problems that matter
- Design the product features that matter

Now we're designing the product.....

Briefing the expert engineers:

- Explain the need and opportunity
- Explain how the end-user will benefit from the technology
- Explain the product claims
- Explain your competitive advantage
- Explain regulatory and IP considerations / constraints
- Explain the science and lab workflow (microbiology lessons, lab visits)
- **Don't tell engineers HOW to design the product, don't paint your own picture too early**
- Involve marketing professionals in product design
- Describe what product features would WOW!
- Explain what features would distance prospective users
- Explain what is critical & not negotiable

MicroStreak Alpha prototype



Development at Invetech

Test bed



Foam model



Beta prototype



Ready to ship



Pre-Production Unit

Market validation



Engaging our commercial partner



Lusia & Stéphane Bancel, bioMérieux CEO





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