



# Bioquell

## 2012 results and update on progress

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# “Helicopter view”: 2 divisions

Bioquell Group – 2012: £41m revenues

## Bio-decon - £26m (63%)

### Bio-contamination control

- hydrogen peroxide
  - oxygen peroxide
  - specialist filtration
  - exports: 80% of revenues
- } water / oxygen by-products

### Life Sciences (84%; £22m)

- research
- clinical trials
- production (including contract manufacturing)

### Healthcare (12%; £3m)

- eradication of Hospital Acquired Infection
- standalone rooms: ICE-pod
- hospital pharmacy: QUBE

### Defence (4%; £1m)

- Chem, Bio, Rad and Nuclear filtration systems

## TRaC - £15m (37%)

### Testing Regulatory and Compliance

- driven by regulatory requirements
- UK regulations
- International regulations

### Disciplines

- EMC: electromagnetic compatibility
- environmental
- telecoms and radio
- safety
- ATEX: explosive atmospheres

### Consultancy

- FEA: Finite Element Analysis
- ESQ: Early Stage Qualification
- medical devices



## Summary revenue data

£m	2012		2011		Δ%
<b>Group revenues</b>	<b>41.0</b>	100%	<b>41.3</b>	100%	-
<i>Exports</i>		55%		57%	
<i>Service</i>		61%		59%	
Revenues ex. Defence	40.0		37.0		+8%
<b>Bio-decon revenues</b>	<b>25.9</b>	63%	<b>27.7</b>	67%	(6%)
<i>Export</i>		80%		77%	
<i>Service</i>		39%		39%	
Bio-decon ex. Defence	24.9		23.3		+7%
<b>TRaC revenues</b>	<b>15.1</b>	37%	<b>13.6</b>	33%	+11%

# Summary profit and loss data

£m	2012		2011		Comments
<b>Revenues</b>	<b>41.0</b>	<i>100%</i>	<b>41.3</b>	<i>100%</i>	Bio-decon held back by Defence activity and Life Sciences equipment sales into certain territories
<i>Gross margin %</i>	<i>48%</i>		<i>46%</i>		
<b>Overheads</b>					
▪ Sales and Marketing	(7.5)	<i>19%</i>	(6.6)	<i>16%</i>	Investment in sales to support new product launches: business is highly operationally geared
▪ Admin	(5.3)	<i>13%</i>	(5.0)	<i>12%</i>	
▪ R&D / Engineering	(2.6)	<i>6%</i>	(2.2)	<i>5%</i>	
<b>Pre-tax profit</b>	<b>4.0</b>		<b>5.0</b>		No tax charge due to significant investment in product development in 2012
<b>Profit after tax</b>	<b>4.0</b>		<b>3.9</b>		
EPS (basic)	+3%	9.6p	9.3p		
DPS (proposed)	+8%	3.06p	2.83p		

## Other financial data

£m	2012	2011	
<b>Net cash from operating activities</b>	<b>6.0</b>	<b>6.4</b>	
Capital investment in equipment	(3.1)	(3.9)	
Expenditure on product development	(3.8)	(2.0)	QUBE; ICE-pod, BIs and CIs
	<hr/> 6.9	<hr/> 5.9	
Bio-decon capex	1.8	1.1	New manufacturing equipment and facilities (QUBE; ICE-pod)
TRaC capex	1.3	2.8	TRaC capex reducing
	<hr/> 3.1	<hr/> 3.9	
Bio-decon depreciation and amortisation	2.6	2.3	
TRaC depreciation and amortisation	1.1	1.1	
	<hr/> 3.7	<hr/> 3.4	
Net cash	1.9	4.0	
Net assets	30.7	27.6	

# Life Sciences (84% of Bio-decon revenues)

QUBE



## Demand across all 3 sub-sectors:

- research
- clinical trials
- production

**Strong growth in AsiaPac – mixed demand for equipment in other territories; overall up 7%**

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**New (on-patent) bio-pharmaceutical products require aseptic (i.e. sterile) preparation (cf. terminal sterilisation)**

**Actively seeking to guide business streams behind regulatory requirements – e.g. bio-contamination control**

- FDA has increasingly global reach

RBDS



**New consumable products generating interest from new clients**

- biological and chemical indicators

# QUBE – “bi-lingual” product



## Life Sciences

### Sterility test

- increasing pressure from regulators on sterility assurance data
- substantial cost to customers of “false positives”
- QUBE “plug and play” product
- QUBE pre-configured to work with market-leading sterility test systems
- RFID-protected consumable revenue stream
- other pure research applications

## Healthcare

### Hospital Pharmacy

- increasing regulatory pressure to prepare IV drugs under sterile conditions
- Europe already has robust regulatory stance
- US hardening its position...
- ... 720 cases and 48 deaths from Fungal Meningitis linked to contaminated IV steroids
- Cytotoxic (oncology drugs) increasingly important application for QUBE



***Strong interest in the novel and innovative QUBE from a range of sub-sectors***

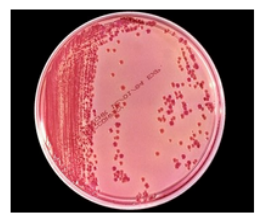


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# Health & Science

## 'Superbug' stalked NIH hospital last year, killing six

By Brian Vastag, August 22, 2012



A MacConkey agar culture plate that cultivated anaerobic *Klebsiella pneumoniae*... (Courtesy CDC)

As a deadly infection, untreatable by nearly every antibiotic, spread through the National Institutes of Health's Clinical Center last year, the staff resorted to extreme measures. They built a wall to isolate patients, gassed rooms with vaporized disinfectant and even ripped out plumbing. They eventually used rectal swabs to test every patient in the 234-bed hospital.

Still, for six months, as physicians fought to save the infected, the bacteria spread, eventually reaching 17 gravely ill patients. Eleven died, six from bloodstream superbug infections.

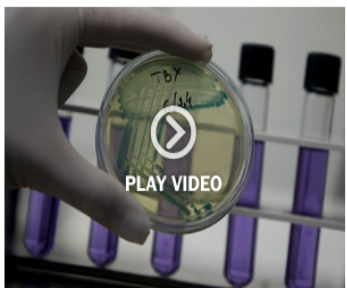
The outbreak of the antibiotic-resistant bacteria known as *Klebsiella pneumoniae* was not made public until Wednesday, when NIH researchers published a scientific paper describing the advanced genetic technology they deployed to trace the outbreak.

This was "the proverbial superbug that we've all worried about for a long time," said Tara Palmore, an infection control specialist at the Bethesda hospital.

# Health & Science

## CDC says 'nightmare bacteria' a growing threat

By Lena H. Sun, March 05, 2013



Deadly "superbugs" -- resistant to even the strongest antibiotics -- have...

Federal officials warned Tuesday that "nightmare bacteria" — including the deadly superbug that struck a National Institutes of Health facility two years ago — are increasingly resistant to even the strongest antibiotics, posing a growing threat to hospitals and nursing homes nationwide.

Thomas Frieden, director of the Centers for Disease Control and Prevention, said at a news conference: "It's not often that our scientists come to me and say we have a very serious problem and we need to sound an alarm. But that's exactly what we are doing today."

He called on doctors, hospital leaders and health officials to work together to stop the spread of the infections. "Our strongest antibiotics don't work, and patients are left with potentially untreatable infections," he said.

# NEWS HEALTH

11 March 2013 Last updated at 13:36

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## Antibiotics resistance 'as big a risk as terrorism' - medical chief

Professor Dame Sally Davies: "If you get an infection in your bloodstream, in about 10, 20 years it might be untreatable"

**The danger posed by growing resistance to antibiotics should be ranked along with terrorism on a list of threats to the nation, the government's chief medical officer for England has said.**

Professor Dame Sally Davies described it as a "ticking time bomb".

She warned that routine operations could become deadly in just 20 years if we lose the ability to fight infection.

Dame Sally urged the government to raise the issue during next month's G8 Summit in London.

Dame Sally said: "If we don't take action, then we may all be back in an almost 19th Century environment where infections kill us as a result of routine operations. We won't be able to do a lot of our cancer treatments or organ transplants."

She said pharmaceutical companies needed to be encouraged to develop new drugs, because the manufacture of antibiotics was not viewed as profitable.

"We haven't had a new class of antibiotics since the late 80s and there are very few antibiotics in the pipeline of the big pharmaceutical companies that develop and make drugs," she said.

### Related Stories

Q&A: Antibiotic resistance

Analysis: A post-antibiotic world

Microbes pose 'catastrophic threat'

### Antimicrobial resistance

Antimicrobial resistance is a global threat.

It happens when organisms are able to survive medicines aimed to destroy them.

Bacteria can become resistant to antibiotics, viruses to antivirals and parasites to drugs like antimalarials.

The World Health Organization says 150,000 deaths a year are caused by multi-drug resistant tuberculosis.

Speaker icon: Professor Dame Sally Davies: It's about the bugs themselves, natural they develop resistance



# Healthcare (12% of Bio-decon revenues)

## Combination of Q-10 equipment sales to hospitals and service bio-decontamination

- emergency and long term proactive

## US market helped by publication in November 2012 of a research paper\* from a group at Johns Hopkins hospital (#1 US hospital)

- patients admitted to a room which had been “bioquelled” were 64% less likely to contract HAI\*\*

## Business driven by increasing threat from antibiotic resistant Gram-negative bacteria, particularly in the Emerging markets (but also in the US)

- antibiotic resistant *Klebsiella* – a developing problem for US hospitals\*\*\*
- UK CMO comment on 11 March: the danger posed by growing resistance to antibiotics e.g. *E-Coli* and *Klebsiella*

## UK market seeing an increase in Q-10 equipment sales on the back of ICE-pods

\* Passaretti C.L: et al. An evaluation of environmental decontamination with HPV for reducing the risk of patient acquisition of MDROs, CID, 2013, **56**(1), 27-35

9 \*\* HAI: hospital acquired infection

\*\*\* MMWR: 8 March, 2013/**62**(09); 165-170



# ICE-pod – new healthcare product



## Infection Control Enclosure (ICE)-pod

- facilitates standalone rooms in open, multi-bed units (i.e. nightingale wards)
- reinforces standalone infection control measures – e.g. helps increase hand hygiene compliance
- ICE-pod can be “bioquelled” – i.e. eradication of all bacteria, viruses and fungi – in c.1 hour

## High added-value service offering

- daily rental
- bespoke design and structure

**Scientific research suggests that both single rooms (i.e. ICE-pod) and eradication of micro-organisms (HPV) will reduce HAI rates**



***ICE-pod solves substantial infection control problem for hospitals with open wards – in developed (e.g. UK, Japan) and emerging markets***



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## Defence (4% of Bio-decon revenues)



**Difficult year with significant reduction in revenues, as per profile of order book**

- 2012 revenues £1.0m (2011 revenues £4.3m)

**Taking active steps to reduce “lumpiness” of Defence activities**

- new LEAF specialist filtration product for upmarket SUVs (also application for other specialist vehicles e.g. cash vans)
- bidding for other international defence contracts
- “sequestration” is not helpful for the Defence sector



# TRaC (37% of Group revenues)

## High quality, growing, well invested service business which is supported by tightening regulatory norms

- UK and international regulations
- EMC\*
- Environmental
- telecoms and radio
- safety
- ATEX\*\*

## 6 sites across the UK – able to offer high service levels in each region

- physical location of facilities strategically important - close to customers is key
- continue to invest in expensive, highly specialist test equipment

## Aerospace market continues to be strong

## Seeing expanding demand for consultancy work via ESQ division

- Early Stage Qualification
- FEA
- medical devices opportunity

# Outlook and prospects



## Substantial change to Bio-decon division product range

- **ICE-pod:** rental product with strong demand from hospitals in the UK (and demand increasing from overseas). HAI\* problem getting worse, particularly re. Gram-negatives
- **QUBE:** Life Sciences and Healthcare applications – novel product (cum proprietary manufacturing) supported by captive consumable revenues
- **other consumables:** BIs, CIs and hydrogen peroxide cartridges growing, with attractive usage-based revenues

**The revenue effect of the new products will not be significant until H2**

**Demand for the ICE-pod has been particularly strong**

- we are in the process of re-configuring our business, which is likely to require some additional investment, to enable us to satisfy increasing UK and overseas demand.

**TRaC is in great shape and has started the year well**

**Strong, ungeared balance sheet with net cash at year end**

- able to fund substantial ICE-pod “fleet”