

## Q10: TALKING HEADS

Ben Fountain poses 10 questions to Sphere Medical CEO, Dr Stuart Hendry

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### The Company



Sphere, which was founded in 2002, is combining its patented microtechnology and nanotechnology to develop unique dice-sized microanalysers capable of measuring several key compounds such as, glucose, blood gases and drugs, simultaneously at low cost. Mortality in critical care remains unacceptably high, with associated costs of £billions annually. Real time measurement of drugs and physiological parameters, facilitating tight control of therapy, has been shown to dramatically improve patient outcomes, saving lives and money. Unfortunately, cost effective products to achieve this ideal are not currently available. Sphere's approach was awarded the Frost & Sullivan Technology Innovation Award in the field of Point of Care Technologies, in recognition of the fact that its innovative microanalyser system could profoundly

impact the Point-of –Care sector. Product extensions into fields such as cardio-pulmonary bypass, renal and neurotrauma applications are also being developed from the product platform.

#### **1) Sphere Medical's technology has the potential to make a major impact on intensive care medicine. What are the headline figures involved?**

The markets Sphere is addressing are huge, the USA spends some US\$150 billion on critical care annually. As an example, the daily cost of keeping a patient in an Intensive Care Unit (ICU) is around US\$1,500 to US\$3,000, depending on the intensity of therapy. With 12 million patients per year in the developed world spending on average 3 days in ICUs the cost of critical care is enormous and growing.

Other application areas have even larger numbers: some 350 million dialysis procedures and 100 million surgical procedures are performed a year. We estimate the addressable market for the anaesthetic sensor we are developing, with the help of a Department of Health grant, at around US\$1billion a year.

The applications for Sphere's technology are extensive within the medical field but also elsewhere. For example, we are already selling a small number of devices for use for the monitoring of cell cultures.

#### **2) Can you give a snapshot of Sphere's commercial progress to date**

Sphere is aiming to construct an initial portfolio of independent deals in terms of application and geography thus maximising exploitation of our technology platform and minimising overexposure to one partner or opportunity.

Sphere is currently working with a number of potential commercial partners with respect to co-development and distribution deals, which are subject to non-disclosure agreements.

Sphere's business development strategy has targeted only major players within each application area that have a significant market share and, therefore, the market presence to ensure maximum product uptake. Application areas under discussion include ICU care, operating room, cardiac bypass monitoring and renal care, all with a global perspective.

### **3) How are your plans for a float shaping up?**

It continues to be Sphere's intention to undertake an IPO when our products and commercial partnerships are sufficiently progressed to optimise the outcome. However, flotation is a step in general company progress, which we believe needs to be viewed in the overall business context.

Accomplishment of our near-term goals will increase Sphere's chances of achieving a successful IPO by strengthening our investment story and thereby making it more resilient to markets in which there is an increasing demand for demonstrated success as a prerequisite to IPO.

This means both that Sphere can achieve a higher valuation and that it may be able to complete an IPO in markets where other – earlier stage - companies fail.

### **4) The public markets appear to be effectively closed to biotechs for example. Why has Sphere got a shot at a successful IPO?**

I think that the opportunity for a successful IPO is very much based on the attributes of the particular company in question and as well as the prevailing trends in the market. It does appear that there has been a move away from biotechs towards medtechs with the belief of lower development risks and shorter times to market.

Within reason this is true, however, like all generalisations it is a gross oversimplification particularly with a sector as heterogeneous as medtech which as is often said covers everything from tongue depressors to CT scanners.

Nonetheless, Sphere is beginning to attain the position where we have strong shareholder support and growing commercial validation that means we will be able to pick the optimum time for flotation as and when the opportunity occurs.

### **5) What are your chief targets over the next 12 months?**

Our primary focus is to cement a small number of deals in a handful of application areas. These will form the basis of the commercial growth of the company for the next several years, progress has been good in this area.

We are currently contemplating our next financing which I suspect we will start to move ahead with before the end of the year.

As always to continue the significant technical progress that we have made which is what underlies the success of the company. We are building our manufacturing capability expanding the facility in Harston, which is an extremely exciting phase for the company.

We are currently preparing certain regulatory approvals as part of a larger overall regulatory strategy that will run into next year.

### **6) What have been the toughest challenges in getting to where you are now?**

It is difficult to raise the serious amounts of money needed for medical devices in the UK, as opposed to USA. Generally, this is caused by the lack of experience with respect to medtech versus biotech.

On a more prosaic level, hiring well-qualified staff experienced in medical device development, which is key for success in our area, has also been a challenge reflecting the relative lack of development of the UK device industry.

## **7) What top tips would you pass on to other aspiring healthcare entrepreneurs?**

I think all of the usual things you hear are true i.e. believe in your idea and yourself, prepare for rejection and overcome it. Enthusiasm is everything, if you're not enthusiastic about what you're doing no one else will be.

Fundamentally, the challenge is whilst that we can all think of a thousand reasons something might not work, which are pointed out to you daily by almost everyone you meet, you need to understand these and focus on the reasons you can make it work. Why is it going to work? Because you are going to make it work.

Remember you can't do everything yourself, build a team with real-life industry experience on which you can rely and in healthcare, think globally.

## **8) What elements of the Government's business policy would you change?**

The government has stated the aim that the UK will be the "best place to start and grow a business in the world", to realise this it needs to develop better regulation and policy and foster better business growth opportunities.

As always access to capital is a key factor for the success of growth but making it easier, as places such as Germany have demonstrated in the past, is not the answer there needs to be more intelligence applied to the system.

Personally, I think the EIS and VCT schemes to be very useful in plug the so called equity gap. The government restricted the conditions last budget, which were that to continue could be injurious for many small companies seeking capital.

Also, the Regional Development Agencies do a good job but government must make sure that the funds are adequate for the task, co-ordinated and efficiently applied where I feel there is some room for improvement currently.

## **9) How important has an international outlook been in shaping Sphere's progress up to now?**

An international outlook has been part of Sphere's business plan from day one. This has been for several reasons firstly, the home market, predominantly the NHS is a slow adopter and a relatively small market in global terms; the economics of developing silicon-based devices costing millions of pounds just don't even begin to add up. Currently, the US is the largest single device market and the vast majority of the large players we seek to partner with are American; the US influences everything from a medical device perspective. The second largest single market is Japan and then Europe, which is far more fragmentary, is next. Sphere plans to address all of these markets.

Very exciting for Sphere are the emerging markets such as China and India where the healthcare infrastructure that is being put into place is leapfrogging the technology of the developed world putting in place such systems at which Sphere would sit at the heart. It's analogous to the putting in of mobile telephone systems missing out the land lines. These markets will be very influential in the coming years.

## 10) What are the pros and cons of operating at the cutting edge of technology?

There are issues of developing a technology in that it has not been done before so you have to find things out for yourself, make your own mistakes, but that is probably true of life in general. By using silicon-based technology, however, a large amount of production processes and equipment are ready developed so it evens out in our favour.

The most exciting thing is that Sphere has the ability to positively impact patient care around the world, improving outcomes and reducing costs. The global device companies we are dealing with share the same vision and that is extremely stimulating.

