

# CORPORATE FINANCIER

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INSIDER DEALING

## Metal smashing

Why investors queued up to put £5m into Cambridge University spin-out Metalysis

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THE THIN BLUE LINE

## Public interest

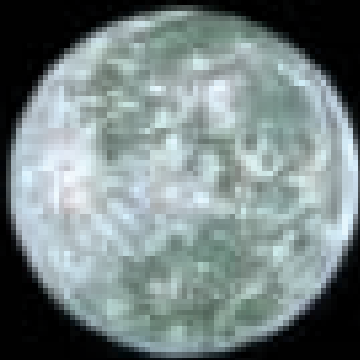
What the Freedom of Information Act could mean for deal makers

# AIM on high

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AIM is growing up.  
But is it ready to take  
on the world?





# Ore inspir

Cambridge University spin-out Metalysis has just raised £5m. Brian Bollen finds how the metals extraction company with the potential to change the world, or the metal

**It's a revolutionary technology. It's manufacturing. It's a long-term play. Any one of these would be enough to make a UK investor think twice. Put all three together and you would expect them to run a mile. But these are the three principal distinguishing features of the recent £5m fundraising by Metalysis. The metals extraction pioneer has demonstrated that a good investment story will always attract serious attention.**

Metalysis was spun out of Cambridge University in 2002 with seed funding from Generics Asset Management and the Cambridge University Challenge Fund. In February 2005, the company closed a £5m round – the largest in the sector for five years – to fund research and development and take it through to a cash-generative position.

The latest investment was co-led by Oxford-based Seven Spires Investments and 3i, with syndicate partners including Generics, the Coalfields Enterprise Fund and Cambridge Capital Group. The company has received grants from Brussels and London and in September 2004 moved to South Yorkshire to take advantage of the area's Objective 1 status.

If the claims are to be believed – and if laboratory results can be replicated in a commercial environment – the company's new technology could be world-changing (see box). Literally. "This is like investing in Henry Bessemer's first furnace, or converter, in 1855, which changed the steel industry in the 19th century," says Ian Page, business development director at Seven Spires. "It needs a good deal of R&D, but the potential is certainly on that scale."

#### Metal on the moon

"This is the first time in my career that I have defined territory in the legal documentation as 'universe' rather than 'the world'," says Russell Bowyer, intellectual property (IP) partner at Osborne Clarke in London. The reason for this is that a by-product of the process licensed to Metalysis – and sub-licensed to British Titanium – could well be the oxygenation of the moon. "It was a very complex twofold assignment," adds Bowyer. "We did due diligence into the adequacy of, and title

to, the underlying technology invented at Cambridge, and negotiated the licence assignment. Universities are academic institutions and aren't particularly used to exploiting technology commercially, and when you're dealing with secret know-how and patents it can be difficult for an institution whose business is the dissemination of knowledge."

Zickie Lim, a senior solicitor in the Mills & Reeve law firm, which has acted for the company since its incorporation, says Metalysis originally licensed the technology from the University. "Under the new arrangements, some of the technology has been transferred to Metalysis and it will have the right to acquire the rest in certain circumstances."

"We are delighted to have closed this round," says Dr Graham Cooley, chief executive of Metalysis. "Metalysis has strong intellectual property, an experienced management team and commercial deals that will provide strong early revenues. With the new investment syndicate, we have all the elements in place to become a world-class company."

The management team is supported by a high-powered chairman, Lord Freeman. A Conservative peer, Freeman is also chairman of PricewaterhouseCoopers' corporate finance advisory board, chairman of Thales and a former partner at Lehman Brothers.

#### One of a kind

"We watched the company for about three years and you don't see this kind of opportunity very often," says 3i director Laurence Garrett, who has joined the Metalysis board. "You don't have ten look-a-like companies backed by venture capitalists all doing the same thing. Metalysis has no competition and Derek Fray is one of the best electrochemical engineers in the world."

Garrett believes that Metalysis is something special: "This kind of innovation in the refinement of key metals happens once every 50 years. It's a new technology in an industry that hardly ever sees new technologies. Semiconductors and software have a breakthrough every six months, but the last one in this industry was the Kroll Process [developed

by Dupont in 1948 for extracting titanium]."

Unusually, Garrett currently sees no clear exit and has no exit strategy in place. "If you build a proper valuable business, someone will want it," he argues, "even the City. That's the task in hand, to build a business."

What attracted Seven Spires? Page explains. "We are a private £25m early-stage high-tech investment fund. My backers look for scaleable breakthrough technology in the UK. Metalysis fulfils those requirements. It caught my eye immediately." Seven Spires quickly gave the company a term sheet for much of what it was looking for and began putting a syndicate together. "Financially, we are the biggest investor, but 3i put in a huge amount of effort to pull it all together, providing time, expertise and bandwidth that we just don't have."

Metalysis has been funded to date by a combination of seed capital and customer financing. The Cambridge University Challenge Fund, chaired by the late Sir Alistair Morton of Channel Tunnel-building fame, contributed £250,000, as did the University's venture capital committee, which he also chaired. Generics Asset Management provided a further £250,000 and one of Metalysis' first customers provided a further \$1m. The total sum enabled the company to develop on a low-cost base until it could complete a major institutional financing round.

#### Knowledge economy

Relocation to South Yorkshire, where Metalysis is building a production facility, will enable the company to tap into regional development funding, which could match the venture capital invested so far. Ironically, the company is today based on a science park in the Dearne Valley, once one of the largest open-cast coal mines in Europe.

Cooley is at pains to point out, though, that this does not mark a return to metal-bashing, but is the very epitome of the knowledge economy that Britain is becoming. The company will focus on high-value, low-volume metals and its factory will be capable of making 100 tonnes a year with a value of hundreds of pounds per kilogramme. "We add value through the intellectual property and uniqueness of the process."

# ring

is investors backing a  
sector at the very least

The company will, he predicts, begin generating significant revenues in around two years, with break-even following soon after. The goal is to achieve an AIM listing or a full IPO once the company is in a strong revenue position.

"Venture capitalists always do things for the money, but this is genuinely exciting. It is something we should be investing in for a nice, warm feeling as well as the financial return," says Richard Hepper, a director of Enterprise Ventures, which manages the Coalfields Enterprise Fund.

Continuing in the vein of early trail-blazers such as Wolfson Microelectronics, which is now listed on the main market of the London Stock Exchange, Metalysis is the latest in a line of companies being spun out of the UK's universities. The spin-out infrastructure – from technology transfer offices to venture capitalists, IP lawyers and experienced managers – that has for decades lagged behind its American counterpart, is finally beginning to deliver on its promise.

**Brian Bollen is contributing editor of Corporate Financier**

## Blinded by science

Metallurgy impacts on everyday life; from increasing use of super capacitors in mobile phones to critical light alloys deployed in aerospace and automotive products. Metalysis is exploiting what is known as the FFC Cambridge process, a novel technique for the extraction of metals from their oxides. Developed by Professor Derek Fray and his team at Cambridge University, the process works for a wide range of high-value metals and offers significant economic and environmental benefits over conventional extraction techniques.

Headed by CEO Graham Cooley, Metalysis is looking to exploit a truly revolutionary technology with a multitude of benefits: "Conventional methods use very nasty chemicals, very strong acids and molten reactive metals. It's not good for the environment and it's very expensive. Our technology uses calcium chloride, which is used on roads in cold weather and has the toxicity of table salt. It's very benign. Most metals on the periodic table could be extracted using the technology."

In technical terms, the FFC process replaces pyrometallurgy with powder metallurgy. In lay terms, that means that it extracts metals from their ores without much of the usual heating, scraping and bashing. "It can produce metals to a near-finished state without melting," says Ian Page of Seven Spires. "It enables you to manufacture things that simply can't be manufactured by existing technology. Could this change the world? It's worth putting up £2m to find out. It could vastly change the economics of producing high-value metals."

"Traditional methods deliver throughput that is a mere fraction of this technology," says Dr Phillip Carter of Generics. "It can take 72 hours to produce 50 kilogrammes of titanium, for instance. FFC demonstrations take less than 24 hours to produce the same volume, and the target is 12 hours. That represents a lot of process removal and cost removal. You can manufacture in a niche, without a British Steel-type infrastructure. You can have much smaller processing plants, very few labour costs and high-value finished products."

The technology also enables oxides to be mixed together, making metals directly and paving the way for new materials that it was impossible to make beforehand. "It is one of the most important technologies to emerge from Cambridge in a generation," says Cooley.



WINNING METALS FFC CAMBRIDGE PROCESS NEW STRUCTURES NEW MATERIALS POROUS METALS METAL POWDERS NEAR NET SHAPE ALLOYS & CARBIDES

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