CATALYST
FINANCIAL RESOURCES LLC

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INITIATING COVERAGE

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IMPLANT SCIENCES CORPORATION (AMEX: IMX)

RATING: BUY

INDUSTRY: SECURITY, MEDICAL AND SEMICONDUCTORS **DISCLOSURES: 1, 5, 10** **RISK: HIGH**

CLOSING PRICE 03/29/07	TRAILING P/E (TTM)	SHARES OUT (MILS.)	MARKET CAP (MILS.)	3-5 YEAR REV. GROWTH	PRICE TARGET
$2.10	NM	11.8	$24.8	N/A	$5.20

ANNUAL DATA – JUNE YEAR END			
	2006A	2007E	2008E
EPS	$ (0.72)	$ (0.33)	$ (0.03)
P/E	N/M	N/M	N/M
REVENUE (MIL.)	$26.4	$27.2	$35.4
P/S	0.94	0.91	0.70

EARNINGS					
	Q1	Q2	Q3	Q4	ANNUAL
2008E	**$ (0.03)**	**$ 0.00**	**$ 0.00**	**$ 0.00**	**$ (0.03)**
2007E	$ (0.16)	$ (0.05)	**$(0.07)**	**$ (0.05)**	**$ (0.33)**
2006A	$ (0.22)	$ (0.12)	$(0.14)	$ (0.24)	$ (0.72)
2005A	$ (0.17)	$ (0.26)	$(0.30)	$ (0.18)	$ (0.91)

Investment Thesis: A Sensitive Sniffer

Unfortunately, it's hard to argue with the proposition that for at least the next few years we are likely to continue to spend public and private funds on increased transport security and, in particular, explosives detection.

Conventional (that is, non-biological and non-nuclear) explosives are among the easiest weapons of mass destruction for private individuals to acquire and use. They can be concealed anywhere from a vehicle, to a package or shopping bag, to a backpack or suitcase, to inside a shirt. "Sheet explosives" can be slipped between the pages of a book or into a laptop computer. For these reasons most major terrorist attacks worldwide have involved conventional explosives.

Bulk explosives detection: keeping explosives out of the hold

Before September 11, 2001, only some 5% of checked bags were screened for explosives. In response to the events of that day, the U.S. Congress mandated that by December 31, 2002 (later extended to December 31, 2003) all bags checked should be screened. This predictably resulted in a scramble to obtain certified screening equipment, along with some grumbling that not all the latest technologies made it through the certification process in time.

Today, over 90% of checked bags are screened, usually with explosives detection systems (EDS), which uses x-ray computed tomography technology similar to a CAT scan, but sometimes also with explosives trace detectors (ETDs) and other methods. (As of July 2006, according to the Government Accounting Office, TSA could not pinpoint the percentage of bags being screened using methods other than EDS, but considered EDS the "standard" method.) EDS detects larger quantities of explosives – the bulk of the explosive itself – while trace detection detects minute traces of explosives, residues around or on a surface that has touched or that contains explosives. Other approved, but labor-intensive, methods include trained canine teams, hand searches and matching of passengers to bags.

According to the U.S. Government Accountability Office, spending on checked-baggage screening equipment totaled $2.5 billion as of September 2004. However, the *Los Angeles Times* also reports that about 1,110

scanners for checked baggage that the U.S. Transportation Security Administration (TSA) purchased at $1 million apiece to meet the December 31, 2003 deadline have been "prone to false alarms and maintenance problems."

Trace explosives detection: keeping explosives out of the passenger compartment

With highly publicized cases such as those of Richard Reid, dubbed the "shoe bomber," in December 2001, and two Russian plane crashes in August 2004 attributed to suicide bombers, attention next turned to keeping explosives out of the passenger compartments of airplanes. By April 2005, the Department of Homeland Security was recommending that the shoes and hands of passengers identified for a second screening after the initial X-ray be re-screened by explosives trace detection. While EDS can detect explosives inside baggage, ETDs detect traces – vapor or particles – of explosive clinging to passengers' skin, clothes or bags, or to other surfaces they have touched.

Trace detection offers advantages over the older EDS. According to the TSA, these include that trace detection is harmless to people and baggage and raises minimal privacy concerns. ETDs are smaller than EDS units and therefore can be used in passenger screening areas. The cost is relatively low, and the 7,000 or so units in use as of 2004 also have some deterrent value.

Concern over explosives getting onto airplanes has risen to the point where a backscatter X-ray machine that shows subjects as though they were naked has been tested in several U.S. airports and in Heathrow. Unsettlingly, a picture of a virtually nude woman taken by the machine in a demonstration of its safety by TSA personnel was published in the New York Times in late February and the subject was widely identified on the Internet within weeks, by face and name.

While we doubt that ultimately, the American public will agree to nationwide "nudity" for all air passengers in the name of homeland security, Implant Sciences, Inc. may have a better answer. Its technology is accurate at detecting traces of explosives, whether in bags, on boarding passes or on the (clothed) person.

Explosives trace detection technology

IMX's flagship product, the Quantum Sniffer™, is an explosives trace detector with a patented sample collection mechanism that facilitates greater sensitivity. The Quantum Sniffer collects the sample, ionizes it, and identifies the sample via ion mobility spectrometry (IMS) technology.

This product was developed by IMX on the basis of its patented ion beam technology. The instrument vaporizes the sample via heated air and then transports the resultant vapor to be ionized via a patented photonic ionization scheme, all of which contribute to efficient sample collection.

Among trace detection systems, IMX's offers the following advantages:

- the Vortex Sample Collection System improves sampling efficiency by concentrating any traces of explosive that may be present and by eliminating surface contamination with the tested object, which can eventually degrade the detector's sensitivity;

- the equipment is lightweight, which is particularly important for handheld equipment;

- the instrument generates ions using a photonic ionization scheme with a light source, instead of a radioactive source, reducing regulatory, safety and disposal issues by comparison to other trace detection machines;

- "real time" detection is made in ten seconds or under according to the company Web site, in line with the best competing equipment and better than many.

Investment Thesis

IMX may well be at the nexus of an ongoing storm of demand for improved and fortified security systems. Not only does the company have products that should be in high demand, but also several technological advances should help bolster IMX's Quantum Sniffer in competitive bids. The following items support our investment thesis:

- The number of critical access points where detectors and trace explosive systems are being deployed is increasing in the U.S. and worldwide. Awareness of the potential vulnerability of the transportation and energy infrastructure is growing, as are requirements for more security inspections and equipment. There is potential need not only at airports and seaports, but also at overland border crossings, courthouses and other public buildings, hazardous waste collection facilities, prisons, sports and concert venues and perhaps even some private buildings.

- As detonation systems become simpler, smaller and harder to detect, advanced methods of explosive detection, including trace explosive detection equipment, are becoming more important as screening tools in the U.S. and worldwide. Since IMX focuses on trace chemical detection, it should benefit directly from this direction in procurement.

- Much of the screening equipment originally deployed at U.S. airports in 2002 and 2003 is at or near the end of its operational life, usually five to seven years, and has become expensive to maintain. Thus there is an operational requirement to replace and, potentially, upgrade most of the screening and explosives detection equipment in the field.

- This is causing a new demand curve for equipment in the intermediate term: for the ETD producers it amounts to demand for nearly 9,000 machines just in the U.S., and demand abroad may well be several times that.

- For fiscal 2007, TSA has requested $3.7 billion for aviation screening operations, representing the lion's share of TSA spending on aviation security. Included in that is over $690 million for the purchase, installation, and maintenance of baggage screening equipment, as well as more than $80 million for "emerging technology" detection systems at passenger checkpoints.

- IMX's flagship product, the "Quantum Sniffer"™, has no radioactive source as competitors do, meaning that it is subject to less regulation. Its "clear-down," that is, time to give a reading, is as fast or faster than that of competitors.

- The Quantum Sniffer's "Vortex" collection system allows non-contact sampling, while most competitors must collect a sample by wiping with a swab. Swabbing takes longer and may be perceived as more intrusive to the subject.

- Swabs eventually contaminate the equipment they are inserted into, necessitating costly and painstaking maintenance. The Quantum Sniffer, with no swabs, has a lower cost of both consumables and maintenance.

- IMX's technology is patented and proprietary.

- IMX has an over twenty-year history of ion beam and implantation knowledge and technology. After several decades of development and navigating through changing markets, the Company has made clear that it now plans to re-focus and streamline its operating strategy. This should mean an improvement in the balance sheet. It could mean the sale of mature assets or businesses.

Company History

The company has built on its historic core competence of ion implantation, known as "doping," beginning with silicon wafer ion implantation services outsourced to IMX by the semiconductor industry in 1984 and then developing a medical devices business.

IMX branched out into ion implantation for the manufacture of radiation therapy products and the modification of the surfaces of medical devices. During the early, breakthrough days of brachytherapy technology, IMX also began to make ion-implanted radioactive seeds for use in prostate cancer treatments.

Implanting nitrogen atoms onto the surface of artificial knees and hips improved the wear surfaces of the joints by reducing their friction and adding lubricity. However, this industry has matured. Because IMX's single customer for these services is discontinuing the product line that IMX services, IMX expects no future revenues from surface treatment of orthopedic implants.

Since 2004, IMX has supplied a related start-up company, CorNova, Inc., with ion implant capability for CorNova's new stent devices. A shortcoming of competing stents has been that they often disappear once in the body and become hard to find even with fluroscopy. Ion implantation adds opacity to the stents, making them visible with fluoroscopy. CorNova has received approval for CE marking (which indicates compliance with health and safety requirements) to market their basic (non-drug-eluting) opaque stent in the European Economic Area, and a drug-eluting version of the opaque stent is in development.

In 2004 and 2005, IMX expanded its semiconductor business by acquisition to provide a stable source of cash generation.

The company operates three business segments: semiconductors, medical (including brachytherapy devices and treatment planning system, implantation services to CorNova, and, formerly, implantation of orthopedic devices) and security.

Trace explosives detection: Quantum Sniffer

Perhaps the most exciting application of IMX's technology is in the security space. Most recently, IMX has extended its product line into trace explosives detection, using ion mobility spectrometry. IMX's flagship product, the Quantum Sniffer, detects trace residues of explosives. It can be used in aviation and transportation security, protection of infrastructure, customs and borders, and cargo screening.

The Quantum Sniffer provides non-contact, real time explosives detection of particles and vapors of trace explosives. At least as sensitive as existing detection equipment and more so than the previous generation, the Quantum Sniffer can detect the presence of explosives molecules at a concentration of only parts per trillion, or nanograms per liter, with only about 1% false positive readings.

IMX has designed into their current line-up of "Quantum Sniffer" products portable, hand-held equipment, both as standalones, and as a benchtop product. The benchtop product is comprised of a detachable, battery-powered

and fully fucntional "Analysis Unit" and a stationary "Base Unit" that contains the monitor and printer, and supplies power to the system. This provides flexibility of use.

Quantum Sniffer: How It Works

This product uses IMX's patented "Vortex" collection system. This creates a cyclonic flow of heated air outward from the detector nozzle which vaporizes the target substance and then creates a vacuum which pulls the sample into the detector. This allows the equipment to concentrate and sample explosives from a specific point, without dilution from outside air, and to detect explosives vapors as well as particles. The technology mimics the "sniffing" ability of dogs. The Quantum Sniffer collects the sample, ionizes it, and identifies the sample via ion mobility spectrometry (IMS) technology.

Explosives trace detection systems collect small residues, or traces, of particles (or, in the case of IMX, vapors). While the Quantum Sniffer "sniffs" concentrated vapors as described above, older systems required a physical swab to be wiped on the sample surface and physically inserted into the equipment. In either case, once collected into such a equipment, the organic compounds in this sample are then desorbed into this sample gas stream. These molecules are then ionized with a proprietary ion source. This is often a radioactive source, but in IMX's case, it is a photonic ionization scheme that induces ultraviolet photons, producing very low energy electrons. These electrons attach to the sampled molecules, ionizing them.

The ionized molecules then move, or "drift" in industry parlance, through an electrical field inside a tube. All explosives have a characteristic "time of flight" through the detector. The equipment measures and identifies this "time of flight" and displays the identification.

Quantum Sniffer: Summary of Benefits

- No radioactive source as competitors have, meaning that it is subject to less regulation.
- "Clear-down," that is, time to give a reading, is at least as fast as that of competitors.
- The "Vortex" collection system allows non-contact sampling, meaning subjects can be processed quickly and non-invasively.
- With no swabs, the Quantum Sniffer has a lower cost of both consumables and maintenance than products that require swabbing.
- The Quantum Sniffer is practical for use in the field: it takes only a few hours to learn to use, and is modular in design, allowing for repairs in the field.

Quantum Sniffer: Demand

Demand for this product is not limited to the United States; if anything, opportunities abroad may be greater. Countries to which Quantum Sniffer has been shipped for use include China, Greece, Pakistan, Italy, South Korea, Kuwait, Dubai, United Arab Emirates, Australia, the U.K., and the U.S.

Notable recent sales include:

- 30 handheld units to an undisclosed customer in Asia, announced December 7, 2006, increasing IMX's installed base of handheld explosives detectors in Asia to approximately 176 units. Previous shipments are being used in railway and law enforcement applications; the new detectors will be used in aviation.
- Eight handheld units, announced on March 6, 2007, from Iraq's Ministry of the Interior, for use in various (unspecified) locations within Iraq.
- Two units have been ordered for use in a major domestic West Coast port and two units have been ordered by a major multi-national hotel chain for use in its Middle Eastern operations, as well as a unit

sold to a distributor for promotion in high threat areas in Indonesia, Malaysia, Sri Lanka, Vietnam and Thailand, all announced March 29, 2007.

Competitive Environment – Direct Competitors

An oft-forgotten fact is that it was the Gore Commission, following the TWA 800 mid-air explosion off Long Island in 1996, that initially kick-started the airport screening industry by calling for improved screening. In 1997, the White House Commission on Aviation Safety and Security initiated an Electronic Baggage Screening Program. In response to September 11, 2001, this program accelerated, increased in scope and was transferred to the Department of Homeland Security and TSA.

The explosives screening market is now highly fragmented, with seemingly dozens of contenders. In 2003, market research firm Homeland Security Research Corp. counted over 55 X-ray and explosives trace detectors on the baggage screening market! Consultants Frost & Sullivan, in a more recent (2005) report, calculate that the narrower U.S. EDS market generated revenue of $219 million in 2004 and project growth to $595 million in 2009.

In a general sense, IMX's systems compete against other technologies -- including X-ray computed tomography, dual energy X-ray, mass spectrometry, and neutronization. Yet in explosives trace detection, just two companies -- General Electric (NYSE: GE -- $35.55: Not Rated) and the U.K.'s Smiths Detection, a unit of Smiths Group plc (LSE: SMIN – Not Rated) -- have been IMX's direct competitors. On January 15, 2007, SMIN and GE announced their intent to form a joint venture, Smiths GE Detection, to be owned 64% by SMIN and 36% by GE.

This combination of Smiths Detection with GE Homeland Protection turns two 800-pound gorillas of competitors into one 1,600-pound competitor that leverages the research and development capabilities of GE's Global Research Center. The pro forma annual revenues of the joint venture through June 30, 2006 are estimated by SMIN management at roughly $1.1 billion, dwarfing IMX's annual revenues of $25.8 million in 2005, $5.4 million of which was its emerging security business. Paradoxically, though, this alliance may actually help IMX in U.S. government procurements, as contracts are typically required to rely on more than one supplier.

While these two companies, like IMX, use ion mobility spectrometry, they use a radioactive Nickel-63 source to ionize the sampled molecules, rather than a photonic ionization scheme as IMX does. IMX believes its equipment has greater capabilities and, because of the lack of radioactivity, less regulatory restrictions. Moreover, because of the Quantum Sniffer's non-contact sampling, its maintenance costs are lower and it uses practically no consumables. (SMIN has one product that can sample either vapors or swabs, but most of its products sample particles from swabs, wands or handled documents.) SMIN estimates the global market for all its products at around GBP 2 billion per year ($3.8 billion) and had 700 airport explosives detection systems deployed or specified as of March 2006.

IMX is to date the low-price competitor. Management believes competing products sell for about $45,000 and up.

Competitive Environment – Indirect Competitors

Sandia, a unit of Lockheed (NYSE: LMT -- $98.10: Not Rated), also has a patented portable "Hound" system that operates in either vapor or swipe mode. For vapor collection, the Hound "sniffs" the item, collecting vapors and particles onto a metal filter which is then heated, re-launching the trapped particles into a much smaller sample of air.

Sandia has also licensed portal "puff" technology to SMIN, and GE has developed a portal of its own, at a cost of about $160,000 each. These portals collect and analyze particles loosened by puffs of air as a passenger walks through, taking about fifteen seconds to check a person from head to toe. However, the installation of these machines is far behind schedule, as they have been plagued by breakdowns and an unacceptably high rate of false positives. (While a detector that makes false negatives is not usable, a detector that makes too many false positives slows down the process and risks lulling the operators into complacency.) They also have not yet received approval for wide deployment.

A gas chromatograph can be combined with IMS to increase accuracy of detection. For instance, Thermo Electron Corporation (NYSE: TMO--$45.92: Not Rated) makes a product called EGIS Defender, an explosives trace detection system that uses high-speed gas chromatography with micro differential ion mobility spectrometry. However, this product is at a cost disadvantage to the Quantum Sniffer, costing about $65,000 apiece. It also produces results more slowly than the Quantum Sniffer; it promises only "less than 16 seconds."

IMS technology does not give absolutely 100% identification of the sampled organic compounds; mass spectrometry, which gauges the mass of the sampled molecules directly instead of indirectly from their speed, is even more accurate. However, mass spectrometry explosives detectors on the market are also at least twice as expensive as the Quantum Sniffer, and also require far more training and skill to operate and maintain than IMS equipment. IMS is more practical and cost-effective for field use.

Finally, according to the National Material Advisory Board, versions of EDS machines small enough to be used right in the passenger screening area of an airport are reportedly also being developed to screen carry-on luggage. Should these enter the market, airlines and the TSA may perceive them as subsitutes for trace detection equipment.

Other IMX Products and Competitive Positions

Wafer ion implant processing for the semiconductor industry
Ion implantation is an essential step in the manufacture of integrated circuit devices. The semiconductor wafers are modified, or "doped," by using an ion beam to implant and guide ions of another material below the surface of the silicon wafer. This modifies the conductivity of the semiconductor.

IMX has developed proprietary technology, including high-current ion sources and specialized component holding fixtures. The company believes this technology provides higher ion implant doses and higher beam power, yielding superior surface characteristics at lower cost, than commercially available equipment.
In October 2004, IMX acquired Core Systems, doubling its semiconductor ion implantation equipment and capacity. This in turn enabled IMX to overcome a capacity constraint and service an additional pool of customers. Additional new revenue opportunities include semiconductor equipment refurbishing services and the sale of source conditioning equipment. In March 2005, IMX acquired Accurel Systems, a Silicon Valley provider of analytical and failure analysis diagnostic services to manufacturers of semiconductor products.

The semiconductor business now provides IMX with a steady and growing source of revenue: $15.1 million in fiscal 2006 (the first year including both acquisitions), $3.9 million in 1Q07, and $4.2 million in 2Q07 (57%, 71% and 59% of total revenues respectively). This is up from just $1 million in fiscal 2004, the last year before the acquisitions.

Many semiconductor manufacturers conduct their own ion implantation. Investors should note, however, that many IMX customers have their own ion implantation equipment, but use theirs for production while relying on IMX for research and new product development. In its semiconductor business, IMX recognizes one main

competitor: privately held Innovion Corporation. Headquartered in San Jose, California, with new facilities in Chandler, Arizona and Gresham, Oregon, Innovion sees itself as a provider of outsourced ion implantation.

Innovion is still in the venture capital stage; one well-known backer is Needham Partners. Innovion has made four ongoing customer relationships public: ATMI (Nasdaq: ATMI -- $30.68: Not Rated), LSI Logic (NYSE: LSI -- $10.03: Not Rated), Silicon Genesis Corporation (privately held), and Supertex, Inc. (Nasdaq: SUPX -- $32.72: Not Rated).

According to Innovion's web site, ion implant tools occupy 25-35% of floor space in a typical "wafer fab," or semiconductor plant, and productivity of the remaining facility could be increased by 30-50% if this space could be repurposed by consolidating the implantation process off-premises in a regional center. IMX serves factories on both coasts, with silicon production and research and development laboratories worldwide.

Ion implantation surface treatments for medical devices
In this process, a thin film coating is grown upon a substrate in a vacuum by the gradual deposition of atoms on the substrate. IMX's proprietary process results in extremely dense coatings, usually consisting of gold or platinum for radiopaque applications. A shortcoming of competing, non-opaque stents has been that they often nearly disappear once in the body and become hard to find even with fluroscopy. IMX's ion implantation adds opacity to the stents, yielding good contrast and sharp edges under x-ray or fluoroscopic examination and making the device more visible.

IMX supplies a related start-up company, CorNova, Inc., a developer of advanced endovascular devices and catheters, with this proprietary process for CorNova's new stent devices. In December, 2006, CorNova received approval for CE marking (which indicates compliance with health and safety requirements, and clears the device for sale in the European Economic Area) for its Valecor(TM) coronary stent system.

This non-drug-eluting opaque stent is CorNova's first product to market, and a drug-eluting version of the stent is in development. The stent was designed to maximize flexibility and conformity while providing uniform expansion and coverage, and according to the company, has some of the thinnest struts of any commercialized coronary stent.

Accordingly, it should soon be evident whether this will be an attractive source of revenue. It is intended to market the stents outside the U.S., where the international bare stent market is estimated by CorNova to be about $1 billion annually.

As of June 30, 2006, the most recent information available, IMX's shares in CorNova represented an 18% ownership position. As of November 11, 2006, the most recent information available, Anthony Armini, IMX's CEO, and Michael Szycher, a director of IMX, are also on the Board of Directors of CorNova.

IMX will no longer be conducting ion implantation of orthopedic prostheses to improve their lubricity, because their single customer, Stryker Corporation (NYSE: SYK - $65.81: Not Rated), has discontinued the product line to which IMX provided this service. In 2Q07 the company expensed $37,000 relating to the impairment of capital equipment used to perform this service.

The technique of ion implantation of medical devices was first applied commercially by Spire Corporation (Nasdaq: SPIR -- $11.33: Not Rated), who could potentially in future become a competitor in ion implantation of stents. Like IMX, SPIR uses proprietary ion implantation and ion-beam-assisted deposition techniques.

Brachytherapy products for breast and prostate cancer
IMX considers Oncura, Theragenics Corp. (NYSE: TGX -- $5.85: Not Rated), and North American Scientific

(Nasdaq: NASI -- $1.18: Not Rated) as its main competitors in radioactive products, including prostate seed implants, radioactive brachytherapy devices and coronary stents. One direct sales force is leveraged across the various radioactive products.

- **Breast cancer radiation treatment, or Accelerated Partial Breast Irradiation (APBI),** is a course of sessions of external beam radiation for early stage breast cancer patients after lumpectomy. It can be completed in four to five days on an outpatient basis and has shown equal efficacy to full-breast irradiation with good cosmetic outcomes. Approximately 600 to 1,000 patients have already been treated. Currently this treatment is performed using an iridium-192 radioactive source. Treatments must be performed in a heavily concrete shielded room, and few U.S. hospitals currently have such rooms. IMX has developed a new lower energy source, ytterbium-169, which delivers the same therapeutic dose but can be done in an ordinary treatment room with some portable shielding around the patient. This source assembly has received a 510(k) pre-market clearance from the FDA and does not require clinical trials prior to commercial sales.

- **Prostate brachytherapy seeds** are applied directly to the prostate to treat cancer. IMX's patented "dry" manufacturing process uses ion implantation to manufacture brachytherapy seeds. As our team has written elsewhere, we consider the prospects for prostate brachytherapy to be strong because the side effects are fewer and the cost is much lower than radical surgery. However, we expect pricing pressure on IMX's seeds to increase. Technological innovation and the aging of the population in the developed world increase the number and types of procedures being performed, and hospitals are consolidating purchases among fewer vendors. Since 2000, there has been considerable consolidation in this industry, and the remaining players are highly interdependent in terms of supply and distribution. Oncura Corp. and C.R. Bard, Inc. (NYSE: BCR -- $79.63: Not Rated) are the largest in market share, with 42% and 30% of the total brachytherapy seed supply market (both iodine and palladium) in 2005. TGX manufactures and distributes palladium-based and iodine-125 based seeds, and a new entrant to the market, Isoray, Inc. (OTC: ISRY -- $3.87: BUY), manufactures and sells seeds using a third element, Cesium-131, which has a shorter half-life and leaves the body sooner.

- **Proprietary treatment planning software** enables the physician to make two- and three- dimensional maps of the stage, grade and location of cancer within the prostate gland. This "Pathology Mapping Module™ " is in addition to the standard treatment planning function used for prostate brachytherapy.

Financial Position:

IMX had FY06 revenues of $26.4 million, and trailing twelve months' revenues of 26.7 million as of 2Q07 ending December 31, 2006. It trades at 0.9x sales, compared to 1.0x for NASI and 2.9 for TGX.

Gross profit was $4.4 million, translating into a solid gross profit margin of 16.2%. Trailing twelve months' EBITDA was -$(0.3) million.

The company's balance sheet is moderately strong. Cash on the balance sheet is $0.5 million, or $0.04 per share. Total debt is 20% of equity. Liquidity is adequate with a current ratio of 1.2x and book value per share is 1.6x.

IMX had a loss of $0.58 per share for 2006.

Hidden Asset

As discussed above, CorNova has received approval for CE marking to market their non-drug-eluting stent in Europe, and a drug-eluting version is in development. Recently, on February 1, 2007, Conor Medsystems, another medical device company with second-generation stent technology that has received CE marking for Europe but not yet U.S. FDA approval was purchased by Johnson & Johnson (NYSE: JNJ -- $60.34: Not Rated) for $1.4 billion, or $33.50 per share, representing a $9.00 premium to Conor's price of $24.50 on November 1, 2006. We estimate Conor's 2006 sales at around $40 million.

If this is any indication, then it suggests that IMX's holding of CorNova shares may yet prove to be a monetizable asset after its stents hit the market. These were written down to zero on the balance sheet in the most recent quarter, as CorNova has accumulated losses.

Future Prospects

We believe that the market has yet to catch up to the Company's change in strategy. The order received earlier this month from the Iraq Ministry of the Interior for eight handheld explosive detectors not only indicates an improving demand environment, but also bodes well for IMX's ability to succeed in a competitive bid situation with this new technology. New technology devices should help to spur the market and interest in IMX's equipment; and the expected rise in TSA orders should help develop the entire environment for this equipment.

Strategic alliances are common in the security industry, especially partnerships with large integrators who can help access customer markets and navigate the certification process. Partnering with a well-known company is also thought to improve government relations. In that context, IMX, or some of its parts, may make attractive acquisition targets for a larger competitor, such as perhaps a GE for its medical business or a Lockheed Martin for its security business.

Tradability of Stock

Like many underfollowed small-cap stocks, IMX is thinly traded and its price can be volatile. During the past twelve months, it has traded between a high of $4.20 and a low of $1.95. Average trading volume, on a trailing three months' basis, is just above 38,000 shares, and the float is 8.13 million, of which 2% were sold short as of December 12, 2006.

Only 2.6% of the shares are currently held by institutions, presenting a ripe opportunity for an investor prepared to withstand some risk in order to get in ahead of the hoped-for crowd. 27% of shares are held by insiders, a good sign that means that insiders are putting up their money to sit at the table alongside investors.

Forecast and Valuation

We valued IMX by breaking it into three parts:

- a profitable, cash-generating semiconductor business that will likely continue at its current volume or even grow for the next few years, now that the acquisitions of Core Systems (acquired in 2004) and Accurel (acquired in March 2005) are assimilated and economies of scope are being realized;
- a lower-margin medical business; and
- an R&D-intensive security products business.

We then projected the three streams of revenue and direct costs forward, and valued the three revenue streams on a price-to-sales basis. We projected semiconductor and medical margins holding steady at current levels. Since the potential for growth is in the security business, we assumed that the large sale to China in fiscal 2Q06 represented optimal capacity utilization and projected margins forward on that basis.

Our model suggests that with the medical segment dropping off in 3Q07 with the loss of the Stryker revenues, and then after that growing 5% year-over-year, driven by sales to CorNova as its business grows, IMX will narrow its loss considerably and approach break-even if it can ramp up production and sales in the security division over the rest of calendar 2007 to $3.8 million a quarter from $1.9 million in the most recent quarter. Although this is somewhat more than were produced during 2Q06, when filling the China order, the transition to outsourced manufacturing is now complete. This has also improved margins in this segment, which we project forward at most recent quarter's levels. Revenues from the security business in 2Q06 were $3.2 million.

Although margins in the medical business fall, the medical segment makes a smaller contribution to the whole, so that consolidated gross margin may actually improve in this scenario.

Finally, thanks to the recent Core and Accurel acquisitions, IMX has gained the capability to service a larger customer base in the semiconductor business. If IMX continues outreach to these potential customers, then the semiconductor revenues may continue to ramp up. Assuming growth for a few more quarters, even at a more modest rate of 8% year-over-year, from $4.2 million in 2Q06 to $4.5 million in 2Q07 and thereafter, our model suggests that IMX could become profitable as soon as mid-calendar year 2008.

Based on peer comparisons, we applied a multiple of 4x sales to the medical business, 4.2x to the semiconductor business, and 2x to the security business. (It should be noted that IMX's current price-to-sales ratio is only 0.9x, i.e., the company sells at a discount to its own revenues.) This yields a price target of about $9.50 by the end of fiscal 2009. Discounted back to today at a 35% rate to account for the speculative risk level of the stock yields a price target of $5.20 – still a respectable gain from the current price of $2.10.

Two ways to help fund this growth and enhance focus would be to sell either the CorNova stake discussed above (that is, monetizing its value sooner) or another portfolio business. IMX's medical business has the lowest margins. These margins have been on average 16% in recent quarters, which the company has said will decrease with the exit from orthopedic implanting – in fact, we've projected it at its current level of 10%.

In February, 2007, Coloplast (CPH: COLO: Not Rated) of Denmark sold the brachytherapy business it had acquired from Mentor Corp. (NYSE: MNT -- $46.80: Not Rated) to a privately held company, Brachysales Inc., for $10.5 million dollars. We estimate the revenues of this business at $10-$14 million annually, on the basis that COLO has said they amount to approximately 1% of its own. This implies that if it so chooses, IMX should be able to turn its projected brachytherapy revenue into immediate cash that can be redeployed. Perhaps more importantly, not only would some restructuring focus senior management's attention on connecting fewer dots, but also it should reduce SG&A, which in this scenario could be the key to running in the black. Debt could also be refinanced from short- to long-term.

Recommendation

IMX has a portfolio of businesses, including an exciting opportunity in explosives trace detection and a cash generator in the semiconductor implanting business. But we believe that what the market is really overlooking is IMX's stake in CorNova. If Conor Medsystems, with some $40 million in 2006 sales, was worth $1.4 billion as a publicly traded company, and if CorNova (whose books aren't public) can command even half of that –

perhaps $700 million – then even if IMX's stake in CorNova had been diluted down to 10% by then, IMX could still see a multi-million dollar payday. Yet IMX's current market cap is just $24 million.

IMX, although a speculative stock, does offer several ways to win. We recommend IMX as a **BUY** at current levels with a price target of $5.20, taking into account the potential for appreciation – whether from strong market acceptance of the Quantum Sniffer or of CorNova's stents, from new security products that currently are in development, from a sale of CorNova to a strategic investor, or from some combination of the above.

Risks:

The Company has received a modified audit opinion on its ability to continue as a going concern.

IMX does not operate at a profit and does not expect to be profitable for some time.

IMX operates in industries subject to intense competition and rapid technological change.

IMX's explosives detection products and technologies may not be accepted by government agencies, airports or airlines.

Future profitability depends on whether IMX's products can successfully compete in the commercial marketplace.

IMX's medical products and technologies may not be accepted by the medical community.

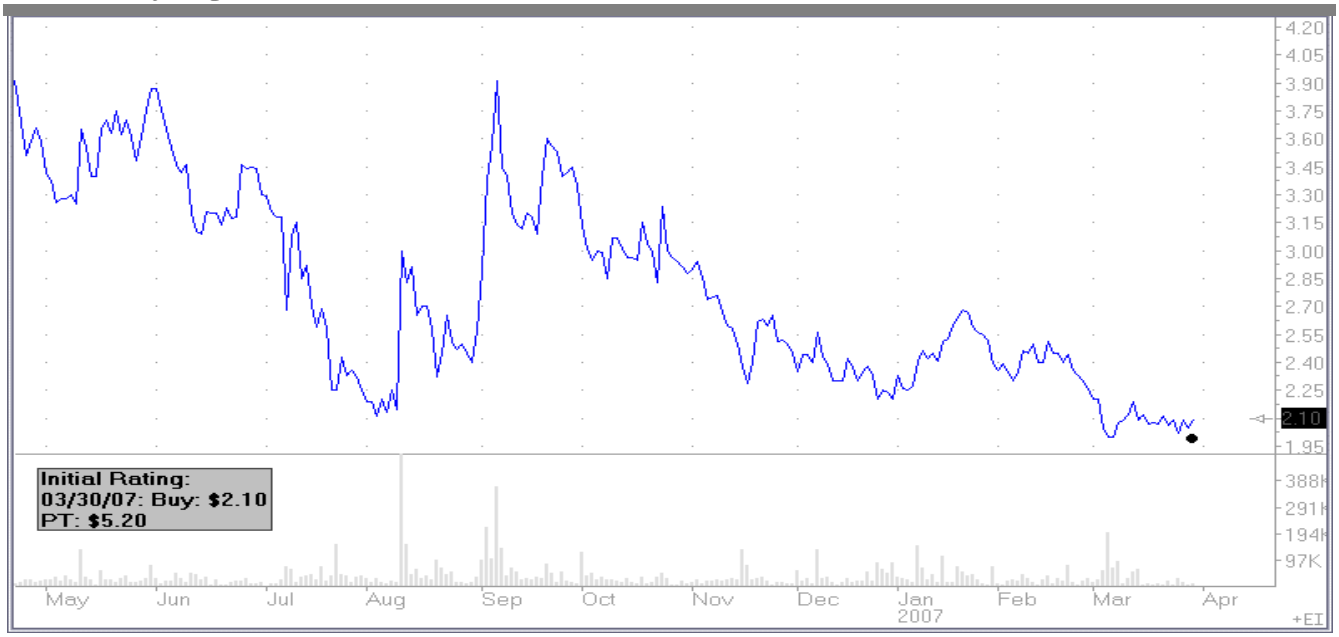
There are risks relating to IMX's disputed Development, Distribution and Manufacturing Agreement with Rapiscan Systems, Inc., a former partner.

Many of IMX's products and services are subject to extensive government regulation. If IMX should fail to obtain or is delayed in obtaining the approval of the necessary federal and state government agencies, or if the regulatory environment should change, its business could be materially affected.

The company depends on insurers' reimbursement for its medical products in order for these products to be commercially viable.

Company Profile

Using its core ion technology, IMX develops, manufactures and markets products for the homeland security, medical device and semiconductor industries. IMX has developed and commercialized portable and bench-top detection devices to identify explosives. These are distributed under the Quantum Sniffer(TM) brand name. IMX also develops, manufactures and sells radioactive products for the treatment of cancer, including sales of radioactive seeds for the treatment of prostate cancer and development of a new, FDA-approved radioactive source for use in the treatment of breast cancer. IMX also provides state-of-the-art ion implantation and wafer analytical services for the semiconductor industry.



Implant Sciences Corporation ($ in thousands, except EPS) Quarter: Quarter Ending:	FY07 Actual 1st 9/30/2006	FY07 Actual 2nd 12/31/2006	FY07 Estimated 3rd 3/31/2007	FY07 Estimated 4th 6/30/2007	FY08 Estimated 1st 9/30/2007	FY08 Estimated 2nd 12/31/2007	FY08 Estimated 3rd 3/31/2008	FY08 Estimated 4th 6/30/2008	FY05A	FY06A	FY07E	FY08E
Total Revenue	$5,580	$7,118	7,039	7,445	8,013	9,083	9,122	9,163	$12,286	$26,391	$27,182	35,381
Cost of Revenue	$4,515	$5,309	5,205	5,439	5,781	6,485	6,520	6,557	$12,056	$22,044	$20,468	25,343
	81%	75%	74%	73%	72%	71%	71%	72%				
Gross Profit	$1,065	$1,809	1,834	$2,006	$2,232	$2,598	$2,602	$2,606	$230	$4,347	$6,714	$10,039
Operating Expenses												
Research and Development	$567	$433	$376	$376	$376	$376	$376	$376	$1,942	$1,313	$1,753	$1,505
Sales, General and Admin.	$1,963	$2,313	$2,155	$2,155	$2,155	$2,155	$2,155	$2,155	$5,524	$8,933	$8,586	$8,619
Non-Recurring Items	$0	$37							$0	$457	$37	$0
Operating Income	($1,465)	($974)	($697)	($525)	($299)	$67	$71	$75	($7,236)	($6,356)	($3,661)	($85)
Add'l income/expense items	$24	$693										
Earnings Before Interest and Tax	($1,441)	($439)	($697)	($525)	($299)	$67	$71	$75	($7,188)	($6,479)	($3,102)	($85)
Interest Expense	$49	$78	$78	$78	$78	$78	$78	$78	$142	$246	$283	$312
Earnings Before Tax	($1,490)	($517)	($775)	($603)	($377)	($11)	($7)	($3)	($7,330)	($6,725)	($3,385)	($397)
Equity Earnings Unconsolidated Subsidiary	($120)	($38)	$0	$0	$0	$0	$0	$0	($75)	($359)	($158)	$0
Net Income-Cont. Operations	($1,610)	($397)	($775)	($603)	($377)	($11)	($7)	($3)	($7,405)	($7,084)	($3,543)	($397)
Tax Rate - For now assume NOL carryforwards will eliminate taxes												
Tax												
Net Income	($1,610)	($397)	($775)	($603)	($377)	($11)	($7)	($3)	($7,405)	($7,084)	($3,543)	($397)
Adjustments to Net Income	($236)	($145)							($1,183)	($1,089)	($381)	$0
Net Income Applicable to Common Shareholders	($1,846)	($542)	($775)	($603)	($377)	($11)	($7)	($3)	($8,588)	($8,173)	($3,924)	($397)
Shares outstanding	11,774	11,776	11,893	12,012	12,132	12,254	12,376	12,500	9,413	11,326	11,864	12,316
Net income per share	**(0.16)**	**(0.05)**	**(0.07)**	**(0.05)**	**(0.03)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.91)**	**(0.72)**	**(0.33)**	**(0.03)**

DISCLOSURES:

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This report has been written in accordance with current SEC regulations and the Standards of Practice developed by the Association of Investment Management & Research (AIMR). Our research has been conducted by employing analytical practices generally accepted as standard within the analytical industry. Our conclusions are, by the very nature of forecasting, speculative, but are also reasonable, supportable and consistent.
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Buy	Immediate purchase is recommended. The security expected to outperform the market over the next 12 to 18 months.
Accumulate	Purchase of the stock is recommended for above average appreciation over the next 12 to 18 months, but the buyer may have an opportunity to acquire the stock within a 10% trading range.
Hold	Holding the stock is recommended because the share price has moved above the specific "Buy" range and, therefore, appreciation potential is less than or equal to the market.
Sell	The stock has reached the target price objective and/or conditions have changed sufficiently to alter the outlook for the stock.

EQUITY RISK SYSTEM:

High	The security is more volatile than the market and/or the company is more leveraged than its peer group.
Moderate	The security has about the same volatility as the market and/or the company carries a level of leverage in line with its peer group.
Low	The security is less volatile than the market and/or the company is less leveraged than its peer group.

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