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## NEWS RELEASE

### **Innomech develops powerful 'track and trace' technology for healthcare markets**

GB Innomech (Innomech), which specialises in the development of advanced automation systems, is helping develop a powerful new low-cost approach to uniquely mark pharmaceutical and related healthcare products and therefore improve product traceability. The technique will allow faster identification and resolution of any manufacturing quality problems but will also prove invaluable as an anti-counterfeit measure because the specific coding and validation systems are almost impossible to copy.

Currently most components within diagnostic kits, medical devices and other healthcare products and equipment are 'stamped' with a lot code at the point of manufacture. However, these codes are of limited use for quality improvement unless products are produced in very small batches. As a result, regulatory bodies across the world are now putting manufacturers under increasing pressure to invest in much more sophisticated traceability systems, while manufacturers are looking for effective ways to prevent the growing problem of counterfeiting of pharmaceuticals and other healthcare products.

The breakthrough approaches being developed by Innomech will enable manufacturers to mark products with a code that is either unique to the item or shared by only a small number of items produced together.

The codemark is an unobtrusive two-dimensional dot matrix identifier that is linked to a look-up database. In effect the matrix code acts as a 'key' to access much more detailed information, such as the specific batch codes of raw materials used during production, the time of manufacture, the production line and so on. A version of the database could be accessible online for anyone to verify the item is genuine

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The codes can be printed or laser etched onto products, applied to virtually any substrate and can even be added onto the surface of pharmaceutical capsules or coated tablets. Matrix codes can be as small as 2 mm by 2 mm holding the code for up to 10 billion numbers. The codes can be read by widely available readers or in many cases from a picture taken with even the simplest camera phone, making them ideal in the battle against counterfeit medicines.

For example, a doctor in remotest Africa about to dispense a treatment course for malaria could take a picture of the product packaging code, send it by SMS to a centralised online database and within seconds have an auto-response to confirm the validity of the product and be sure he/she is not dispensing an ineffective or even potentially fatal counterfeit product.

The integration of such techniques fits in well with Innomech's business of providing advanced automation and ensuring that high risk areas are thoroughly investigated through feasibility studies. Ensuring the appropriate type of laser, which is suitable to the product and is capable of being used as part of the overall automation solution is a key area of investigation.

"Innomech is now working with several clients to help adjust their manufacturing processes to incorporate this powerful new approach and enable products to be much more easily marked than has previously been possible," said Steve Robertson, managing director of Innomech

**Notes to editors:**

**Background information on counterfeit medicines**

The World Health Organisation estimates around 50% of all medicines sold online are worthless counterfeits and in developing nations, fake tablets or capsules may account for as much as 30% of all drugs on the market [ref: [www.who.int/mediacentre/factsheets/fs275/en/index.html](http://www.who.int/mediacentre/factsheets/fs275/en/index.html) ].

The risk these counterfeits pose is considerable. During the 1995 meningitis epidemic in the West Africa state of Niger over 50,000 people were inoculated with fake vaccines containing only tap water, resulting in 2,500 deaths [ref: [www.nafdacnigeria.org/publichealth.html](http://www.nafdacnigeria.org/publichealth.html) ]. And in 2005, during the H5N1 bird flu outbreak, the FDA issued several consumer warnings about the widespread availability of fake Tamiflu via the internet.

**About GB Innomech**

GB Innomech (Innomech) specialises in automating highly complex and labour-intensive manufacturing processes to maximise outputs, improve product quality and boost business performance. The company works with major international manufacturers in sectors such as pharmaceuticals, medical devices and environmental, as well as earlier-stage businesses looking to bring breakthrough technologies or products to market.

Innomech has a growing market reputation for solving the toughest of manufacturing problems by the early identification and management of risk, often cross-fertilising technologies and techniques from a range of industry sectors. All projects from initial feasibility studies through to building production-scale machines are conducted to high specification pharmaceutical industry standards and are designed to comply with GAMP5, FDA and other international standards.

The company was founded in 1990, is based at The Innovation Centre in Witchford, north of Cambridge and was awarded The Queen's Award for Enterprise 2009 to recognise its sustained growth in international markets.

For additional information about GB Innomech please visit or contact:

- [www.innomech.co.uk](http://www.innomech.co.uk)
- Press enquiries to Simon McKay on +44 (0)1353 741075 or email to [simonmckay@innomech.co.uk](mailto:simonmckay@innomech.co.uk)
- All other enquiries to Steve Robertson at Innomech on +44 (0)1353 667394

### **Photographs**

Print quality JPEGs of the images below have been sent as a separate file attached to the original email or are also available on request from Simon McKay (details above):



Innomech is developing technologies to print or laser etch two-dimensional dot matrix identifier codes onto a variety of healthcare products. The image above shows a 2 mm x 2 mm matrix code printed onto the surface of drug capsules.



Adding 2D-matrix codes to drug capsules [shown above] or onto tablet coatings is one of the most powerful anti-counterfeiting measures available today. The specific codes and validation systems are virtually impossible to copy and within seconds doctors can validate the product's authenticity via an online system.

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