

# THIS WEEK IN CHEMISTRY

5<sup>TH</sup> OCTOBER - 11<sup>TH</sup> OCTOBER 2014

## NOBEL PRIZE FOR BREAKING OPTICAL MICROSCOPE BARRIER

Stefan Hell, William Moerner & Eric Betzig were awarded the Nobel prize in chemistry this week for the development of 'super-resolved fluorescence spectroscopy' - making features billionths of a metre in size visible, & breaking a barrier thought to exist since 1873.



## NEW CLASS OF FATTY ACIDS REDUCES DIABETES IN MICE

Researchers discovered 16 related fatty acids that caused blood-sugar levels to drop and glucose tolerance to rise in insulin-resistant mice. They could help treat type 2 diabetes in humans, pending further research, or lead to development of new drug pathways.



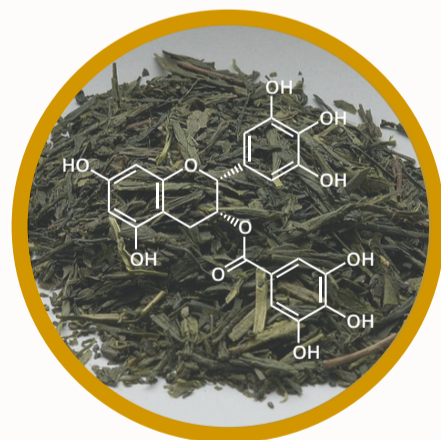
## LASERS USED TO WRITE CHARACTERS IN GOLD IN CELLS

Researchers have succeeded in using a laser beam to write characters in gold nanoparticles inside a cell, with the use of a gold ion solution. In future, this may allow use of nanoparticles as probes in cells, and may also link different types of microscopy.



## A GREEN TEA-BASED CANCER DRUG DELIVERY SYSTEM

Scientists have used molecules based on a green tea polyphenol molecule, which itself shows anti-cancer activity, to encapsulate an anti-cancer drug. The delivery system was shown to shrink tumours and act more selectively in mice than the anti-cancer drug alone.



## DNA MOULDS USED TO PRODUCE CUSTOM NANOPARTICLES

German scientists generated custom shaped gold nanoparticles 40 nanometres in length using moulds made from DNA. The technique could, in the future, enable the self-assembly of small electronic components and circuits.



CREATED BY COMPOUND INTEREST  #TWIChem

Twitter: @compoundchem | Facebook: [www.facebook.com/compoundchem](http://www.facebook.com/compoundchem)

References & links to papers: <http://goo.gl/qXFPhj>

