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University on a mission to cut carbon

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A University of Greenwich at Medway chemist developing innovative ways of generating clean fuel to cut UK carbon emissions has been invited to join a national knowledge transfer partnership mission to Germany and Switzerland.

Dr Bruce Alexander is using nanotechnology to create hydrogen for electricity using water, solar energy and tiny particles from a range of chemicals such as titanium dioxide, which is found in paints and toothpastes.



He said: "Nanotechnology has been around since the Middle Ages, we just haven't called it that. It is essentially the science of the very small. For example, our medieval ancestors applied nanotechnology when they used tiny particles of gold to make stained glass red and some claim that Indian craftsmen used nanotechnology to make weapons nearly 2000 years ago.

"In the UK, if we are to meet our target of an 80 per cent reduction in carbon emissions by 2050, this is exactly the type of technology we need to be developing.

"More than a quarter of our current carbon emissions come from transport. We need to electrify our transport system across the board. Nanotechnology promises to provide the key to doing this.

"Taking advantage of small chemical particles and sunlight, we can extract hydrogen from water with zero carbon emissions. New forms of power generation, such as fuel cells, can convert the hydrogen into electricity and use it to power many forms of transport, again with no carbon emissions or pollution. Transport for London currently has five buses that run on hydrogen.

Dr Bruce Alexander will be accompanying a select group of nanotechnology specialists from a number of UK organisations such as the Carbon Trust and the Technology Strategy Board. They will be visiting a range of institutions including the Eidgenössische Technische Hochschule Zürich and the Fraunhofer Institute for Solar Energy in Switzerland.

The visits, which are designed to help nanotechnology experts share information and knowledge about turning their research into commercial applications, are backed by the Department for Business, Innovation and Skills and the Nanotechnology Knowledge Transfer Network.

"This Nanotechnology Mission in March and the knowledge transfer partnerships will help European researchers join forces to ensure that the work we are doing in our laboratories can be turned into innovative, commercially viable applications," said Dr Alexander.

For further information about the University of Greenwich, call 0800 005 006 or visit www.greenwich.ac.uk.

Ends

For interview opportunities and further media information, please contact:

- University of Greenwich Public Relations, tel: 020 8331 9420*
- Delphine Houlton or Georgette McCready, at Maxim, tel: 01892 513033*