

Nano & Microtechnologies

A showcase of medical, environmental and electronic applications



European partnering event
Wednesday 20 October 2010, Cavendish Conference Centre, London

KEYNOTES

Lord Alec Broers, Bio Nano Consulting
Dr Tapani Ryhanen, Nokia Research Centre

SPEAKERS INCLUDE:

Fiat Research Centre
Abbott
Illumina
World Gold Council
NANOMOL
QuantamMDx
National Contact Point, FP7 NMP UK
National Physical Laboratory
SafeNano
London Centre of Nanotechnology

BENEFITS OF ATTENDING

• 1-2-1 PARTNERING MEETINGS

Meet potential business partners from other industry sectors across Europe

• APPLICATION SHOWCASE

Hear more about the future directions and new markets from our expert speaker panel

• FOCUS GROUP AND CLINICS

Participate in up to **4** group discussions of your choice, highlighting funding opportunities, standardisation and other challenges in this sector

• ACADEMIC POSTER SESSIONS

Explore exciting new research development highlighted by our academics and their posters

Funded by:



Supported by:



To book or register your interest contact Holly Parker at
H.Parker@LTNetwork.org or on 0870 730 8688
© LTN 2010 programme may be subject to change

Nano & Microtechnologies

Wednesday 20 October 2010, Cavendish Conference Centre, London

08.40 **Registration**

09.15 **Introduction to LTN, EEN and the event**

Ron Oren, Technology Analyst, **LTN**

09.25 **Morning keynote address**

Lord Alec Broers, Chairman of the Board,
Bio Nano Consulting

SESSION 1: NANOPARTICLES & NANOMATERIALS

Chaired by session sponsor

09.45 **Functionalised nanoparticles in human cells**

- Noble metal nanoparticles for cancer imaging, targeting and therapy
- Targeting strategies using polyfunctional surface modifications
- Cytotoxicity and genotoxicity issues in development of polyfunctional nanovectors

Dr Boris Kysela, Group Head, Genome Stability and DNA Repair, **University of Birmingham**

10.00 **Application of gold nanoparticles in different industry sectors**

- The work of the World Gold Council
- Examples of applications
- The future for gold nanoparticles

Dr Trevor Keel, Project Manager – Industrial Applications, **World Gold Council**

10.10 **Research and Application of Nanotechnology in the Automotive Sector**

- Reducing costs and increasing sustainability
- From engineering components to engineering functionalities
- The different nanotechnologies that can be integrated in one car

Gianfranco Innocenti, Nanomaterials & Polymers Department Manager, **Fiat Research Centre**

10.25 **Using a nanocomposite material to develop new plastic electronic devices**

- Synthetic routes towards nanocomposites
- Using nanocomposites as sensors for medical or electronic applications

Professor Jaume Veciana, Director, **NANOMOL**

10.35 **Q&A**

10.50 **Networking break and 1-2-1 partnering meetings with poster session**

SESSION 2: NANOSENSING & NANODETECTION

Chaired by session sponsor

11.20 **Using nanotechnology to detect molecular interactions**

- Nanomechanical biosensors
- Cantilever arrays
- Future directions for nanosensor technology

Dr Rachel McKendry, Reader in Biomedical Nanoscience, **London Centre of Nanotechnology**

11.35 **General trends in nanosensors from an industry perspective**

Sophie Laurenson, Project Lead, **New Technology Assessment, Abbott**

11.50 **Case Study: Sourcing Nanotechnology for a Lab on a Mobile Phone**

- How to choose the right nanotechnology
- Integrating different nano- and microtechnologies into one device
- Anticipating future requirements that could be met by nanotechnology

Elaine Warburton, CEO, **QuantumMDx**

12.05 **Q&A**

12.20 -13.10 MORNING ROUNDTABLE WORKSHOPS

Attendees can choose two of the following workshops of 25mins each, facilitated by experts in the sector

A - Funding Clinic, led by **Alastair McGibbon**, National Contact Point for NMP, **FP7 UK**

B - Standardisation, led by **Steve Hankin**, Director of Operations for SafeNano, **Institute of Occupational Medicine**

C - Nanomedicine

D - Nanotechnologies for sustainability

13.10 **Lunch and partnering meetings with poster sessions**

To book or register your interest contact Holly Parker at

H.Parker@LTNetwork.org or on 0870 730 8688

© LTN 2010 programme may be subject to change

Nano & Microtechnologies

Wednesday 20 October 2010, Cavendish Conference Centre, London

14.25 **Afternoon keynote address:**
Applications and Future Directions for Nanotechnology in Mobile Devices
Dr Tapani Ryhanen, Laboratory Director,
Nokia Research Centre

15.25 **Microfluidic and Micro-optical Solutions in Pathogen Detection**
LionIX BV

15.35 **Q&A**

SESSION 3: MINIATURIZATION AND MICROT TECHNOLOGY

Chaired by session sponsor

14.45 **Current state-of-play and future directions for microtechnology**

- Hybridisation of current technologies with nano and micro innovations
- Micro vs nanoelectronics
- Defense applications for microtechnology

Professor Mark Tracey, Professor of Microtechnology, **University of Hertfordshire**

15.00 **Microtechnology for DNA sequencing**

- Past, current and future of miniaturization
- Commercial benefits of going smaller

Geoff Smith, Senior Director of Biochemistry, **Illumina**

15.15 **Fabrication of micro and nano systems**

- Current and future applications
- Challenges and limitations

Mir Mokhtari, Managing Director, **Mir Enterprises**

15.50 **Networking break and 1-2-1 partnering meetings with poster sessions**

16.20 - 17.10 **AFTERNOON ROUNDTABLE WORKSHOPS**
Attendees can choose two of the following workshops of 25mins each, facilitated by experts in the sector.

A - Funding Clinic

B - Measurement challenges, led by

Dr Alexandre Cuenat, Senior Research Scientist, **National Physical Laboratory**

C - Nanosensors

D - Advantages and disadvantages of miniaturization

17.10 **Summary of roundtables and panel discussion**

17.30 **Cocktail reception hosted by Catalan Delegation - ACC10**



19.30 **Reception ends**

PLUS! Follow us on **twitter @ltechnetwork** for breaking conference news

Business Opportunity

This unique event will be an excellent opportunity to initiate new relationships through tailored networking and a showcase of the latest academic research. If you are interested in being a session sponsor or would like to see the range of sponsorship packages available, please contact Dr Maya Mendiratta on 0870 730 8687 or m.mendiratta@LTNetwork.org

LTN INTEREST GROUPS

LTN and Enterprise Europe Network supported Special Interest Groups (SIGs) are focussed on encouraging collaboration, and the transfer of expertise, between technology intensive companies and the academic research base.



LTN is currently working with four SIGs: Emerging Medical Technologies, Environmental Technologies, Information and Communication Technologies and Security & Sensing. They provide members the opportunity to forge deep links within an active university / business network. To find out further information on any of these SIGs please email Natalie Tamiollo at n.tamiollo@LTNetwork.org or call 0870 730 8683.

To book or register your interest contact Holly Parker at

H.Parker@LTNetwork.org or on 0870 730 8688

© LTN 2010 programme may be subject to change

Registration and Payment

Large companies (150+ employees) £220 (+VAT = £258.00)

Small / medium companies (50–149 employees) £150 (+VAT = £176.25)

Academics* and micro companies (49 employees and below) £100 (+VAT = £117.00)

Discounts are available if you refer a friend and on multiple bookings (3 or more places).

Please call Holly Parker on 0870 730 8688 for more details.

*Academic rate is extended to full-time employees of government, universities and university-affiliated hospitals only. Costs for the conference are shown above. The fees are all exclusive of VAT (17.5%).

All payments must be received prior to the conference and should be made within 14 days of receiving a provisional place. Attendance will be confirmed upon receipt of payment. Prices include all refreshments and delegate documentation. All LTN events are by invitation to ensure that the quality of interaction is maintained. The purpose of our events is to encourage collaboration between industry and academia. You are welcome to invite people whom you think would be interested, however LTN reserves the right to decline applications. To apply for an invitation, and to find out about different payment methods, please email **Holly Parker** at h.parker@ltnetwork.org

HOW TO GET THERE

This event will take place at Cavendish Conference Centre, 22 Duchess Mews, London, W1G 9DT,

Tel: 020 7323 4555

For a more detailed view, please go to www.mayfaircavendish.com/locations/cavendish/



By Underground: Oxford Circus Underground Station is 5 minutes walk away. Take Exit 4 on leaving the station, walk North up Regent Street, past the Langham Hotel. Duchess Street is the 5th on the left. Turn left, and almost immediately you will see Duchess Mews on your right hand side, where our sign is clearly displayed.

By Rail: Marylebone, Euston and Kings Cross St Pancras Stations are all within 10 minutes taxi rides or alternatively 15 minutes by Underground. Paddington Station (which has a direct link to Heathrow every 15 minutes) is 20 minutes walk or 10 minutes in a taxi.

Car Parking: On street Pay and Display car parking is available outside the.

Conference Centre; otherwise there are NCP car parks, as listed below, all within 5 minutes walk of the venue. Weymouth Mews - Chandos Street - Cavendish Square.

NCP parking Blue Badge Parking Scheme To view spaces in the area reserved for Blue Badge holders on a map please visit bluebadge.direct.gov.uk To plan your journey using London Bus services. London Travel Information: T +44(0)20 7222 1234 www.londontransport.co.uk

Neither the European Commission nor the Executive Agency for Competitiveness and Innovation nor any person acting on behalf of them is responsible for the use which might be made of the information contained herein. The views in this publication are those of the author and do not necessarily reflect the policies of the European Commission.

To book or register your interest contact Holly Parker at

H.Parker@LTNetwork.org or on 0870 730 8688

© LTN 2010 programme may be subject to change