

CV: Professor Jeremy John Baumberg, FRS

Nationality: British
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Career History

Director of Cambridge Nano Doctoral Training Centre: 2009- current
Leading £8M training centre for >50 PhD students across Chemistry, Engineering, Physics and Materials, in Nano-Assembly of Functional Materials & Devices.

Head of NanoPhotonics Centre: University of Cambridge, UK 2007- current
Appointed to new senior chair at the Cavendish Labs, starting up a new research activity in NanoPhotonics, with Portfolio and Programme grant funding.

Founder/Researcher: Mesophotonics Ltd. 2001- 2008
NanoPhotonics spin-off company from research on photonic crystals, based at the Southampton Science Park. Seed funding of £2.8M raised in 2001. Second round funding raised \$10M in 2004. Taiwan labs (2006) and bought by UniLite.

Director of Nano: University of Southampton, UK 2000- 2007
Led Nano strategic theme across the University, pump-priming new groups, fostering inter-disciplinary research, and developing fabrication facilities. Founded NanoMaterials Forum, jointly funded by industry, linking diverse groups.

Professor: University of Southampton, UK 1998- 2007
Joint chair in departments of Physics & Astronomy and Electronics & Computer Science heading a new initiative focussed on the properties of meso- and nano-scale physics and technology. Co-director of EPSRC NanoPhotonics Portfolio Centre from 2005, and developed NanoMaterials Platform.

Researcher: Hitachi Cambridge Laboratory, Cambridge, UK. 1994-1998
Permanent research position in synergy between industry and academia. Strong collaboration with the Microelectronics Research Centre, probing ultrafast spectroscopy of nanofabricated structures for future optoelectronic and electron devices. Developed long range research and short-range technology projects joint with optoelectronics and basic research laboratories in Japan.

IBM Postdoctoral Fellowship: Univ. of California, Santa Barbara, USA: 1992-1993
Visiting Fellow at the Quantum Institute, working with Prof. DD Awschalom in a joint program with IBM Yorktown Heights Research Centre. Developed new now ubiquitous techniques to time-resolve spin dynamics in magnetic semiconductors.

Junior Research Fellowship: Jesus College, Oxford, UK: 1991-1994
Stipendiary position allowed development of expanding research interests and collaborations. Granted sabbatical leave of absence to take up IBM Fellowship.

Postgraduate degree: Clarendon Laboratory, Oxford, UK: 1988-1992
D.Phil. in experimental Ultrafast Spectroscopy Group, supervised by Prof. J.F. Ryan. Thesis title: "*Coherent Nonlinear Optical Processes in Semiconductors*".

First degree: Jesus College, Cambridge, UK 1985-1988
Natural Sciences (1st class Honors)

Named Lectures:

- 2008 **Cambridge Philosophical Society, Larmour Lecture 2008**
2004 **Institute of Physics, Mott Lecture 2004**

Appointments/Awards:

- 2011 Elected **Fellow of the Royal Society**
2008 Board of Munich Nano-initiative Centre
2008- Strategic Advisor to EPSRC on Nanotechnology
2005 Elected **Fellow of Optical Society of America**
2004 **Royal Society Mullard Prize and Medal**
2004-08 EPSRC Physics Strategic Advisor
2004 **Institute of Physics, Mott Lecturer**
2003 Elected Fellow of the Institute of Nanotechnology
2001-09 Editorial Board: Semiconductor Science and Technology
2001 **Institute of Physics Charles Vernon Boys Prize and Medal**
2001-05 CLEO Program Committee and Ultrafast Chair
2001-09 Institute of Physics, Quantum Electronic and Photonics Group Ctte
2000 - Visiting Professor: University of Hokkaido, Japan
1998 Elected **Fellow of the Institute of Physics**
1996 Visiting QUEST Fellow, UCSB, USA
1996 **Hitachi Managing Director's Award for Research**
1991 Vice-President of Oxford University Graduate Union

Standing in Research Community:

- Strong publications: 43 top-ranked 'Letters' papers in 12 years, including in the last 7 years alone: 11 Phys. Rev. Lett., 13 Appl. Phys. Lett., 2 Nature, 4 Opt. Lett., 2 Physics World; already >4700 citations mostly from recent papers, 29 recent papers with over 30 citations, the most popular with >400 citations.
- Partner in EU 5th (2), 6th (3), 7th (2) Framework programs, & NSF-EPSRC grant
- Int. Program Cttes: OECS ('05-10); ICSCE ('05-10); PLMCN ('05-'10); ICPS ('07), CLEO ('01-08), 28th ICPS ('06), Ultrafast Phenomena ('01); HCIS ('01-03)

Patents:

11 patents granted (with 5 more in progress): including coherent control ('95), all-optical spin switch ('96), continuum generation chip ('03), plasmon filters ('01), photonic crystal lasers ('99), SERS substrates ('03,'08), plasmonic solar cells ('06).

Selected recent Plenary/Invited Talks:

- 2010: CLEO (San Jose), OSA (Karlsruhe), SPIE (San Diego), Photon10 (Southampton), ETH (Zurich), PLMCN10 (Armenia), Microsoft (Seattle), CLERMONT4 (Crete)
2009: ICTON (Portugal), PLMCN9 (Maratea), Microsoft Summit (Redmond), OECS11 (Madrid), NIM (Munich), DEEPEN (Harrogate), NanoPhotonics (Cuba)
2008: Photonics West (San Jose), ICSCE3 (Japan), Frontiers in Nano (Florence), CLEO (San Jose), EMRS (Strasbourg), Nanooptics (Bad Honnef), ICSNN'08 (Brazil), NME2008 (Athens),
2007: Photonics West (San Jose), NanoGiga (Phoenix), PLMCN7 (Cuba), EQEC (Munich), FOPS07 (Montana), Organic Photonics (Seattle), OECS10 (Italy), Microcavities (Charlotte)
2006: CLEO (Long Beach), Nano (Taiwan), Optics East (Boston), Photonics Metamaterials (Bahamas), PLMCN6 (Magdeburg), ICSNN (Istanbul), Photonics'06 (Hyderabad)
2005: SPP2 (Graz), Einstein IoP (Warwick), NanoScience (Irsee), Faraday Discussion (RSC), Nano & Public Engagement (Bristol), Colloque Franco-Russe (France), ECOC'05