

PhotoBiotics Raises Further Funding for Antibody Drug Conjugates (ADCs)

London, 11 October 2011: PhotoBiotics Ltd is pleased to announce that it has completed a further equity financing by a syndicate of existing investors that will significantly extend the company's runway by funding a 2-year research programme to develop its unique and innovative proprietary **OptiLink** ADC technology platform.^{1, 2} ADCs combine the pharmacological potency of small cytotoxic drugs with the high tumour antigen specificity of antibodies, providing targeted therapies for cancer and other diseases.

Currently available ADCs are based on whole monoclonal antibodies (mAbs), but drug-loading ratios tend to be low, due mainly to whole mAb-based ADCs being insoluble at higher drug loadings. However, PhotoBiotics' **OptiLink** technology platform^{3, 4} addresses this shortcoming, showing quite counter-intuitively that attaching drug and/or imaging moieties to much smaller mAb fragments (scFvs) leads to soluble ADCs with higher drug loadings. Moreover, smaller scFv-based ADCs have superior pharmacokinetics/dynamics compared with mAbs, are easier to produce and formulate, and increase the versatility of most mAbs/scFvs. PhotoBiotics is currently testing an scFv-based ADC as a targeted MRI (Magnetic Resonance Imaging) contrast agent.

"This vote of confidence from our existing investors is an important step forward for the company." says PhotoBiotics' Chairman Dr Till Medinger. "The new funding allows us to exemplify our unique **OptiLink** technology in the exciting and lucrative ADC marketplace, with the potential to make PhotoBiotics highly competitive in targeted therapy, imaging, and other indications."

Notes for Editors:

1. For more information on PhotoBiotics funding, please contact: Dr Elizabeth Rollinson, Mob: +44 (0)7771 870410. Email: e.rollinson@photobiotics.com
2. 'Innovations in Biotechnology 2008: Development-Stage Companies and Scientific Findings Leading the Way', *BioWorld Today*, June 2008. http://www.bioworld.com/servlet/com.accumedia.web.Dispatcher?next=S08438_6064 .
3. 'Targeted photodynamic therapy with multiply loaded recombinant antibody fragments.' *International Journal of Cancer* 2008; **122**: 1155-1163.
4. 'Fluorescence characterisation of multiply-loaded anti-HER2 single-chain Fv-photosensitiser conjugates suitable for photodynamic therapy'. *Photochemical and Photobiological Sciences*. 2007; **6**: 933-939.

About PhotoBiotics (see www.photobiotics.com)

PhotoBiotics Ltd is a multidisciplinary company spun out from Imperial College London to explore ways of targeting drugs directly to tumours, thus enhancing the efficacy of cancer treatment while also reducing unwelcome side-effects. The Company has developed a unique and simple antibody-drug conjugate (ADC) technology platform, denoted **OptiLink**, which enables the multiple attachment of drugs to *antibody fragments*. Counter-intuitively, **OptiLink** allows far higher drug loadings on antibody fragments than normally achieved with whole monoclonal antibodies. The PhotoBiotics' R&D team has already succeeded in its initial objective of targeting photosensitiser-based drugs to tumours, generating compelling efficacy data in various orthotopic and xenograft models, and has a product ready to enter preclinical toxicology/clinical development. The Company is now exemplifying how **OptiLink** has utility across a wide range of other ADC applications, including the targeted delivery of conventional cytotoxic drugs and MRI contrast agents.