Curriculum Vitae Katarina Svanberg (November 2010)

Katarina Svanberg (maiden name Ragnarsson), born Dec. 11, 1944 in Falköping, Sweden. Swedish Citizen

A. Professional preparation

Göteborg University	Economy, Political Sci.B.A.,	Master of Arts 1966,	1970
Lund University	Medicine; Medical Doctor, 1984,	Reg. Physician	1988
Lund University	Oncology & Int. Medicine	PhD, Medical Science	1989
Lund University Hospital	Oncology & Int. Medicine	Registered Oncologist	1994
Lund University	Oncology	Associate Professor	1995
Lund University	Oncology	Adjoined Professor	2008

B. Appointments

Göteborg School District	Teacher	High school	1970-1974
Göteborg University	Lecturer	Economic history	1976-1977
Lund University	Assistant (part time)	Internal Medicine	1989-1995
Lund University Hospital	Physician	Int. Med. & Oncology	1984-ongoing
Lund University Hospital	Chief Consultant	Oncology	2004-ongoing

C. Commissions of trust

Lund University Medical Laser Centre: Board 1991-, Sci. Secr. 1992-, Director 2000-, *Lund Laser Centre:* Board 1993-. *Quadra Logic Technologies, Vancouver,* Sci. Advisory Board 1989-1995. Ed. Board: *J. of Biomedical Optics & Lasers in Medical Science* (1995-2000, 2009-), *US Public Health Service Office on Women´s Health and National Cancer Institute*, *Washington,* Sci. Advisory Board, Optical Technologies**,** 1997-. *Pharmacyclics, Sunnyvale,* Sci. Advisory Board 1998-. *European Laser Association, Amsterdam,* Sci. Secretary 1998-2002. *The International Society for Optics and Photonics (SPIE)*, Bellingham, WA, USA: Member of the Board of Directors, 2005-2008, Elected president candidate 2008. SPIE Presidential Chain from 2009; Vice President 2009, President Elect 2010, President 2011, Immediate past president 2012.
International Biomedical Optics Conference chair person (3 times), Organizing committee member and Programme committee member for numerous international conferences within the field of Biomedical Optics and Laser Applications in Medicine
Regularly refereeing: Acta Dermato-Venerologica, British J. of Cancer, Photochemistry and Photobiology, Lasers in Surgery and Medicine, International J. of Cancer, J. of Biomedical Optics.

D. Entrepreneurial achievements

Katarina Svanberg is co-author of about ten patent applications resulting in a number of granted patents. She was a co-founder and main medical advisor for Spectraphos AB (bought by Xillix Inc), SpectraCure AB, Lund and GasPorox AB, Lund. She is since many years a main medical advisor for the US based STI Inc., resulting in US-Lund

research grants. She is a co-recipient of the SKAPA Innovation Prize in 2004. She received the Innovator award, Society for Industrial Development, Sweden, in 2007.

E. Theses of graduate students with K.S. as scientific supervisor, faculty opponent and PhD examination committee member

Principal scientific supervisor: Ingrid Wang (Oncology 1999), PhD co-advisor: Annika Nilsson, Ingrid Rokhar, Christian Sturesson, Charlotta Lindquist, Marcelo Soto Thompson, Jenny Svensson, Thomas Johansson, Sara Pålsson, Ann Johansson, Linda Persson, Märta Lewander (dissertation December 17, 2010). Faculty opponent; Liwei Ma, Oslo University, Inst. for Cancer Research, PhD committee member: Zoltan Békàssy, Magdalena Cwikiel, Palle Möller and Adalsteinn Gunnlaugsson.

F. Other relevant qualifications

Recipient of the Royal Scientific Society Interdisciplinary Research Prize, Uppsala 1995.
Prize citation: "For outstanding interdisciplinary work on tissue diagnostics and tumour therapy using lasers".
Recipient of the SKAPA Innovation Prize 2004.
Recipient of the Innovator award, Society for Industrial Development, Sweden, 2007.
Fellow of the International Society for Optics and Photonics, SPIE, 2005.

Scientific achievements by Katarina Svanberg

Katarina Svanberg started her research career by studying laser light interaction with biological tissue. Her PhD thesis in Medical Science presented pre-clinical research work within experimental photodynamic therapy and tissue spectroscopy. The subsequent research activity has been focussed on clinical application of the pre-clinical achievements. K.S. has been active as an invited speaker at more than 100 international scientific conferences. She has about 85 peer-reviewed original scientific papers and book chapters and is the co-author of 20 scientific review papers. Katarina Svanberg has combined her clinical activity with research work and thus has been able to introduce a new cancer treatment modality in Oncology (Photodynamic Therapy) at the Lund University Hospital. The validation of the new modality was presented after performing two different randomized clinical studies at the hospital. She has been a key person in the collaboration in between several clinics and departments at the Lund University Hospital in introducing and applying laser-induced fluorescence spectroscopy for early tumour detection. K.S. has been instrumental in bringing out this clinical research work to several other countries within scientific networks, including many countries in Europe, Africa and the US. K.S. is a board member of Lund Laser Centre since 1993. Since 1991 she is also a board member of Lund University Medical Laser Centre, where she now serves as the director. K.S. has also been listed as a principal investigator in a research programme within National Institute of Health, Rockville. She has also served as a deputy co-ordinator within an EU-project (BRIGHTER) for laser application in medicine, in which programme industrial as well as scientific partners collaborate and from 2008 she is the medical coordinator for another EU-project (Photonics 4 Life) within photonics application for human health. During the years 2005 - 2008 she was appointed as one of the Directors in the Board for the International Society for Optics and Photonics, SPIE - an international learned society with more than 16 000 members globally. She is now in the SPIE Presidential chain; Vice President 2009, President Elect 2010 and will be the President 2011.

Scientific Publications, Katarina Svanberg

(Up till 1993 all authors in alphabetic order by policy, except for 64)

Peer-reviewed original publications

1. K. Svanberg, N. Bendsoe, J. Axelsson, S. Andersson-Engels and S. Svanberg, Photodynamic Therapy – Superficial and interstitial illumination in skin and prostate cancer, *J. Biomed. Optics* **15**, 041502 (2010).
2. N. Vogler, T. Meyer, D. Akimov, I. Latka, Ch. Krafft, N. Bendsoe, K. Svanberg, B. Dietzek, J. Popp, Multimodal imaging to study the morphochemistry of basal cell carcinoma, J. Biophoton. 1–9 / DOI 10.1002/jbio.201000071 (2010).
3. S. Lindberg, M. Lewander, T. Svensson, R. Siemund, K. Svanberg and S. Svanberg, The gas composition in the mastoid using laser spectroscopy, *Otolaryngology – Head and Neck Sureg.,* **141**, 92 (2009)
4. M. Lewander, Z. G. Guan, K. Svanberg, S. Svanberg and T. Svensson, Clinical system for non-invasive *in situ* monitoring of gases in the human paranasal sinuses, *Optics Express* **17** 10849-10863 (2009).
5. T. Svensson, E. Alerstam, M. Einarsdóttir, K. Svanberg and S. Andersson-Engels, Towards accurate *in vivo* spectroscopy of human prostate, *J. Biophotonics,* **10**, 1-4, (2008).
6. L. Persson, M. Lewander, M. Andersson, K. Svanberg, and S. Svanberg, Simultaneous detection of molecular oxygen and water vapor in the tissue optical window using tunable diode laser spectroscopy *Applied Optics*, **47**, 2028-2034 (2008).
7. N. Bendsoe, L. Persson, A. Johansson, J. Axelsson, J. Svensson, S. Gräfe, T. Trebst, S. Andersson-Engels, S. Svanberg and K. Svanberg, Fluorescence monitoring of a topically applied liposomal Temoporfin formulation and photodynamic therapy of non-pigmented skin malignancies, *J. Envir. Path. Toxic. Oncology* **26**, 117-126 (2007).
8. J. Svensson, A. Johansson, S. Gräfe, B. Gitter, T. Trebst, N. Bendsoe, S. Andersson-Engels and K. Svanberg, Tumor selectivity at short times following systemic administration of a liposomal Temoporfin formulation in a murine tumor model, *Photochem Photobiol*. **83**, 1211-1219 (2007).
9. L. Persson, M. Andersson, M. Cassel-Engquist, K. Svanberg and S. Svanberg, Gas monitoring in human sinuses using tunable laser spectroscopy, *J. Biomed. Opt.* **12**, 053001 (2007).
10. R. Rydell, C. Eker, S. Andersson-Engels, P. Wahlberg and K. Svanberg, Fluorescence investigations to identify laryngeal lesions in vivo, *Head and Neck* **30,** 419-426 (2008).
11. T. Svensson, M. Einarsdóttir**,** K. Svanberg and S. Andersson-Engels, In vivo optical characterization of human prostatic tissue using near-infrared time-resolved spectroscopy, *J. Biomed. Opt.* **12**, 014022 (2007).
12. A. Johansson, J. Svensson, N. Bendsoe, K. Svanberg, E. Alexandratou, M. Kyriazi, D. Yova, S. Gräfe, T. Trebst and S. Andersson-Engels, Fluorescence and absorption assessment of a lipid mTHPC formulation following topical application in a non-melanotic skin tumor model, *J. Biomed. Opt.* **12**, 034026 (2007).

13. L. Persson, K. Svanberg and S. Svanberg, On the potential for human sinus cavity diagnostics using diode laser gas spectroscopy, *Appl. Phys.* **B 82**, 313-317 (2006).
14. A. Johansson, T. Johansson, M. Soto Thompson, N. Bendsoe, K. Svanberg, S. Svanberg and S. Andersson-Engels, In vivo measurement of parameters of dosimetric importance during interstitial photodynamic therapy of thick skin tumors, *J. Biomed. Opt.* **11**, 34029 (2006).
15. A. Johansson, N. Bendsoe, K. Svanberg, S. Svanberg and S. Andersson-Engels, Influence of treatment-induced changes in tissue absorption on treatment volume during interstitial photodynamic therapy of thick skin tumours, *Med. Laser Applications* **21**, 261-270 (2006).
16. M. Soto Thompson, T. Johansson, S. Pålsson, S. Andersson-Engels, S. Svanberg, N. Bendsoe, U. Stenram, K. Svanberg, J. Spigulis, A. Derjabo and J. Kapostins, Photodynamic therapy of basal cell carcinoma with multi-fibre contact light delivery, *J. Envir. Path. Toxic. Oncology* **25**, 411-424 (2005).
17. S. Pålsson, U. Stenram, M. Soto Thompson, A. Vaitkuviene, V. Puskiene, R. Ziobakiene, J. Oyama, U. Gustafsson, M.J. DeWeert, N. Bendsoe, S. Andersson-Engels, S. Svanberg and K. Svanberg, Methods for detailed histopathological investigation and localisation of cervical biopsies to improve the interpretation of autofluorescence data,. *J. Envir. Path. Toxic. Oncology* **25**, 321-340 (2005).
18. M. Tarstedt, I. Rosdahl, B. Berne, K. Svanberg and A. M. Wennberg, A randomized multicenter study to compare two treatment regimens of topical methyl aminolevulinate (Metvix (R)) in actinic keratosis of face and scalp, *Acta Dermato-Venerologica* **85**, 424-428 (2005).
19. M. Soto Thompson, A. Johansson, T. Johansson, S. Andersson-Engels, N. Bendsoe, K. Svanberg and S. Svanberg, Clinical system for interstitial photodynamic therapy with combined on-line dosimetry measurements, *Applied Optics* **44,** 4023-4031 (2005).
20. S. Pålsson, L. Gustafsson, M. Soto Thompson, M. Stenberg, N. Bendsoe, S. Andersson-Engels and K. Svanberg, Kinetics of the superficial perfusion and temperature in connection with photodynamic therapy of basal cell carcinomas using esterified and non-esterified 5-aminolevulinic acid, *Brit. J. Derm*. **148**, 1179-1188 (2003).
21. T. Johansson, M. Soto Thompson, M. Stenberg, C. af Klinteberg, S. Andersson-Engels, S. Svanberg and K. Svanberg, Feasibility study of a novel system for combined light dosimetry and interstitial photodynamic treatment of massive tumors, *Applied Optics* **41**, 1462-1468 (2002).
22. C. Eker, R. Rydell, K. Svanberg and S. Andersson-Engels, Multivariate analysis of laryngeal fluorescence spectra recorded *in vivo*, *Lasers Surg. Med.* **28**, 259-266 (2001).
23. M. Soto Thompson, L. Gustafsson, S. Pålsson, N. Bendsoe, M. Stenberg, C. af Klinteberg, S. Andersson-Engels and K. Svanberg, Photodynamic therapy and diagnostic measurements of basal cell carcinomas using esterified and non-esterified 5-aminolevulinic acid, *J. Porphyrins Phthalocyanines* **5**, 147-153 (2001).
24. I. Wang, N. Bendsoe, C. af Klinteberg, A.M.K. Enejder, S. Andersson-Engels, S. Svanberg and K. Svanberg, Photodynamic therapy versus cryosurgery of basal cell

carcinomas; results of a phase III randomized clinical trial, *Br. J. Dermatol.* **144**, 832-840 (2001).

25. S. Andersson-Engels, G. Canti, R. Cubeddu, C. Eker, C. af Klinteberg, A. Pifferi, K. Svanberg, S. Svanberg, P. Taroni, G. Valentini and I. Wang, Preliminary evaluation of two fluorescence imaging methods for detection of basal cell carcinomas of the skin, *Lasers Surg. Med.* **26**, 76-82 (2000).
26. A.M.K. Enejder, C. af Klinteberg, I. Wang, S. Andersson-Engels, N. Bendsoe, S. Svanberg and K. Svanberg, Blood perfusion studies on basal cell carcinomas in conjunction with photodynamic therapy and cryotherapy employing laser Doppler perfusion imaging, *Acta Dermato-Venerologica* **80**, 19-23 (2000).
27. C. af Klinteberg, A.M.K. Enejder, I. Wang, S. Andersson-Engels, S. Svanberg and K. Svanberg, Kinetic fluorescence studies of 5-aminolaevulinic acid-induced protoporphyrin IX accumulation in basal cell carcinomas, *J. Photochem. Photobiol. B* **49**, 120-128 (1999).
28. C. Eker, S. Montán, E. Jaramillo, K. Koizumi, C. Rubio, S. Andersson-Engels, K. Svanberg, S. Svanberg and P. Slezak, Clinical spectral characterisation of colonic mucosal lesions using autofluorescence and δ aminolevulinic acid sensitisation, *Gut* **44**, 511-518 (1999).
29. F. Torabi, K. Ramanathan, P.O. Larsson, L. Gorton, K. Svanberg, Y. Okamoto, B. Danielsson and M. Khayyami, Coulometric determination of NAD^+ and NADH in normal and cancer cells using LDH, RVC and a polymer mediator, *Talanta* **50**, 787-797 (1999).
30. I. Wang, L. Pais Clemente, R.M.G. Pratas, E. Cardoso, M. Pais Clemente, S. Montán, S. Svanberg and K. Svanberg, Fluorescence diagnostics and kinetic studies in the head and neck region utilizing low-dose δ-aminolevulinic acid sensitization, *Cancer Lett.* **135**, 11-19 (1999).
31. I. Wang, B. Bauer, S. Andersson-Engels, S. Svanberg and K. Svanberg, Photodynamic therapy utilising topical δ-aminolevulinic acid in non-melanoma skin malignancies of the eyelid and the periocular skin, *Acta Ophthalmol. Scand.* **77**, 182-188 (1999).
32. K. Svanberg, I. Wang, S. Colleen, I. Idvall, C. Ingvar, R. Rydell, D. Jocham, H. Diddens, S. Bown, G. Gregory, S. Montán, S. Andersson-Engels and S. Svanberg, Clinical multi-colour fluorescence imaging of malignant tumours - initial experience, *Acta Radiol.* **39**, 2-9 (1998).
33. H. Heyerdahl, I. Wang, D.L. Liu, R. Berg, S. Andersson-Engels, Q. Peng, J. Moan, S. Svanberg and K. Svanberg, Pharmacokinetic studies on 5-aminolevulinic acid-induced protoporphyrin IX accumulation in tumours and normal tissues, *Cancer Lett.* **112**, 225-231 (1997).
34. J. Johansson, R. Berg, K. Svanberg and S. Svanberg, Laser-induced fluorescence studies of normal and malignant tumour tissue of rat following intravenous injection of δ-amino levulinic acid, *Lasers Surg. Med.* **20**, 272-279 (1997).
35. D.L. Liu, K. Svanberg, I. Wang, S. Andersson-Engels and S. Svanberg, Laser Doppler perfusion imaging: New technique for determination of perfusion and reperfusion of splanchnic organs and tumor tissue, *Lasers Surg. Med.* **20**, 473-479 (1997).

36. D.L. Liu, S. Andersson-Engels, C. Sturesson, K. Svanberg, C.H. Håkansson and S. Svanberg, Tumour vessel damage resulting from laser-induced hyperthermia alone and in combination with photodynamic therapy, *Cancer Lett.* **111**, 1-9 (1997).
37. H. Nilsson, J. Johansson, K. Svanberg, S. Svanberg, G. Jori, E. Reddi, A. Segalla, D. Gust, A.L. Moore and T.A. Moore, Laser-induced fluorescence studies of the biodistribution of carotenoporphyrins in mice, *Br. J. Cancer* **76**, 355-364 (1997).
38. I. Wang, S. Andersson-Engels, G.E. Nilsson, K. Wårdell and K. Svanberg, Superficial blood flow following photodynamic therapy of malignant skin tumours measured by laser Doppler perfusion imaging, *Br. J. Dermatol.* **136**, 184-189 (1997).
39. C. af Klinteberg, A.M.K. Nilsson, I. Wang, S. Andersson-Engels, S. Svanberg and K. Svanberg, Laser-induced fluorescence diagnostics of basal cell carcinomas of the skin following topical ALA application, *Biomedical Optics Newsletter* **5**, 1-6 (1996).
40. C. Staël von Holstein, A.M.K. Nilsson, S. Andersson-Engels, R. Willén, B. Walther and K. Svanberg, Detection of adenocarcinoma in Barrett's oesophagus by means of laser-induced fluorescence, *Gut* **39**, 711-716 (1996).
41. K. Svanberg, D.L. Liu, I. Wang, S. Andersson-Engels, U. Stenram and S. Svanberg, Photodynamic therapy using intravenous δ-aminolaevulinic acid-induced protoporphyrin IX sensitisation in experimental hepatic tumours in rats, *Br. J. Cancer* **74**, 1526-1533 (1996).
42. S. Andersson-Engels, R. Berg, K. Svanberg and S. Svanberg, Multi-colour fluorescence imaging in combination with photodynamic therapy of δ-amino levulinic acid (ALA) sensitised skin malignancies, *Bioimaging* **3**, 134-143 (1995).
43. D.L. Liu, I. Wang, S. Andersson-Engels, C.H. Håkansson, U. Stenram and K. Svanberg, Intra-operative laser-induced photodynamic therapy in the treatment of experimental hepatic tumours, *Eur. J. Gastroenterol. Hepatol.* **7**, 1073-1080 (1995).
44. E. Palmqvist, C. Berggren Kriz, M. Khayyami, **K. Svanberg** and D. Kriz, DC-resistometric urea sensitive device utilising a conducting polymer film for the gas-phase detection of ammonia, *Biosens. Bioelectron.* **10**, 283 (1995).
45. W. Alian, S. Andersson-Engels, K. Svanberg and S. Svanberg, Laser-induced fluorescence studies of *meso*-tetra(hydroxyphenyl)chlorin in malignant and normal tissues in rat, *Br. J. Cancer* **70**, 880-885 (1994).
46. D.L. Liu, B. Jeppsson, H.O. Heuer, C.H. Håkansson, K. Svanberg, S. Svanberg and U. Stenram, Beneficial effects of platelet activating factor receptor antagonist WEB 2170 on 90-minute hepatic inflow interruption, *Eur. J. Gastroenterol. Hepatol.* **6**, 1015-1022 (1994).
47. H. Nilsson, J. Johansson, K. Svanberg, S. Svanberg, G. Jori, E. Reddi, A. Segalla, D. Gust, A.L. Moore and Th. A. Moore, Laser-induced fluorescence in malignant and normal tissue in mice injected with two different carotenoporphyrins, *Br. J. Cancer* **70**, 873-879 (1994).
48. K. Svanberg, T. Andersson, D. Killander, I. Wang, U. Stenram, S. Andersson-Engels, R. Berg, J. Johansson and S. Svanberg, Photodynamic therapy of non-melanoma malignant tumours of the skin using topical δ-amino levulinic acid sensitization and laser irradiation, *Br. J. Dermatol.* **130**, 743-751 (1994).

49. R. Rydell, K. Svanberg, J. Wennerberg, Å. Elner and S. Svanberg, Photodynamic imaging of cancer *in situ* and cancer of the head and neck, *Head and Neck* **16**, 521 (1994).
50. S. Andersson-Engels, J. Ankerst, J. Johansson, K. Svanberg and S. Svanberg, Laser-induced fluorescence in malignant and normal tissue of rats injected with benzoporphyrin derivative, *Photochem. Photobiol.* **57**, 978-983 (1993).
51. L. Baert, R. Berg, B. van Damme, M.A. D'Hallewin, J. Johansson, K. Svanberg and S. Svanberg, Clinical fluorescence diagnosis of human bladder carcinoma following low-dose Photofrin injection, *Urology* **41**, 322-330 (1993).
52. L. Liu, K. Svanberg, I. Wang, U. Stenram, S. Andersson-Engels and S. Svanberg, Liver twin tumours: A new experimental hepatic tumour model in the investigation of various treatment strategies, *Med. Sci. Res.* **21**, 703-706 (1993).
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54. S. Andersson-Engels, Å. Elner, J. Johansson, S.-E. Karlsson, L.G. Salford, L.-G. Strömblad, K. Svanberg and S. Svanberg, Clinical recording of laser-induced fluorescence spectra for evaluation of tumour demarcation feasibility in selected clinical specialities, *Lasers Med. Sci.* **6**, 415-424 (1991).
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59. S. Andersson-Engels, A. Gustafson, J. Johansson, U. Stenram, K. Svanberg and S. Svanberg, Laser-induced fluorescence used in localizing atherosclerotic lesions, *Lasers Med. Sci.* **4**, 171-181 (1989).
60. S. Andersson-Engels, A. Brun, E. Kjellén, L.G. Salford, K. Svanberg and S. Svanberg, Identification of brain tumours in rats using laser-induced fluorescence and haematoporphyrin derivative, *Lasers Med. Sci.* **4**, 241-249 (1989).
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64. K. Svanberg, E. Kjellén, J. Ankerst, S. Montán, E. Sjöholm and S. Svanberg, Fluorescence studies of hematoporphyrin derivative (HpD) in normal and malignant rat tissue, *Cancer Res.* **46**, 3803-3808 (1986).
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Papers under editorial consideration in international journals or in preparation

69. J. Swartling, J. Axelsson, G. Ahlgren, K.M. Kälkner, S. Nilsson, S. Svanberg, K. Svanberg and S. Andersson-Engels, System for interstitial photodynamic therapy with online dosimetry – first clinical experiences of prostate cancer, *J. Biomed. Opt* (submited) (2010).
70. S. Lindberg, M. Lewander, T. Svensson, R. Siemund, K. Svanberg and S. Svanberg, Method for studying gas composition in the human mastoid using laser spectrascopy, (submitted 2010).
71. M. Lewander, S. Lindberg, T. Svensson, R. Siemund, K. Svanberg and S. Svanberg, Non-invasive diagnostics of the maxillary and frontal sinuses based on diode laser gas spectroscopy, (submitted 2010).
72. H. Xie, P. Svenmarker, J. Axelsson, S. Graefe, M. Kyriazi, N. Bendsoe and K. Svanberg, Pharmacokinetic and biodistribution study following systemic administration of Fospeg – a pegylated liposomal temoporfin formulation in a murine model, (to appear 2010).
73. H. Xie, H. Liu, P. Svenmarker, J. Axelsson, C.T. Xu, S. Graefe, J. H. Lundeman, H. Cheng, N. Bendsoe, P. Andersen, K. Svanberg and S. Andersson-Engels, Accurate drug quantification in turbid media by fluorescence imaging combined with white light-absorption correction using Monte Carlo Simulation, (to appear 2010).
74. M. Lewander, A. Bruzelius, S. Svanberg, K. Svanberg and V. Fellman, Non-intrusive gas monitoring in neonatal lungs using diode laser spectroscopy – Feasability study, (to appear 2010).

Invited reviews

75. M. Andersson, R. Grönlund, L. Persson, M. Sjöholm, K. Svanberg and S. Svanberg, Laser spectroscopy of gas in scattering media at scales ranging from kilometers to millimeters, *Laser Physics* **17**, 893-902 (2007).
76. K. Svanberg, Diagnostics and treatment of human malignant tumours using laser based techniques, *SPIE* **5226**, 387-393 (2003). Invited paper.
77. K. Svanberg, C. af Klinteberg, A. Nilsson, I. Wang, S. Andersson-Engels and S. Svanberg, Laser spectroscopy in tissue characterisation, *Biomedical Optical Spectroscopy and Diagnostics*, Orlando, FL, (1996).
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81. K. Svanberg and S. Svanberg, Fluorescence diagnosis and photochemical treatment of diseased tissue using lasers, *Proc. Conference on Spectroscopic Approaches to Analysis of Biological Tissue*, Albuquerque, New Mexico, USA, (1992). Invited paper.
82. K. Svanberg, R. Berg, J. Johansson and S. Svanberg, Photodynamic laser therapy of malignant superficial lesions, *Therapy* **3**, 5-8 (1992).
83. S. Andersson-Engels, J. Johansson, K. Svanberg and S. Svanberg, Laser-induced fluorescence in medical diagnostics, *SPIE* **1203**, 76-96 (1990). Invited paper.
84. S. Andersson-Engels, J. Johansson, K. Svanberg and S. Svanberg, Fluorescence diagnosis and photochemical treatment of diseased tissue using lasers, Part I, *Biochim. Clin.* **14**, 936-942 (1990).
85. S. Andersson-Engels, J. Johansson, K. Svanberg and S. Svanberg, Fluorescence diagnosis and photochemical treatment of diseased tissue using lasers: Part II, *Biochim. Clin.* **14**, 1043-1051 (1990).
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