

Dr.ssa Croce Anna Clela

Pubblicazioni su Riviste e Libri Nazionali ed Internazionali e Brevetti

- 1) PROSPERI E., CROCE A.C., BOTTIROLI G., DASDIA T., SUPINO R. Uptake kinetics and intracellular distribution of anthracyclines studied by laser cytofluorometry. *Bas. Appl. Histochem.*, 27, 117-127, 1983. PMID: 6577857.
- 2) PROSPERI E., CROCE A.C., BOTTIROLI G., SUPINO R. Influence of Daunorubicin on membrane permeability properties: detection by means of intracellular accumulation and efflux of fluorescein. *Chem.-Biol. Interactions*, 54, 271-280, 1985. [http://dx.doi.org/10.1016/S0009-2797\(85\)80168-X](http://dx.doi.org/10.1016/S0009-2797(85)80168-X).
- 3) PROSPERI E., CROCE A.C., BOTTIROLI G., SUPINO R. Flow cytometric analysis of membrane permeability properties influencing intracellular accumulation and efflux of fluorescein. *Cytometry*, 7, 70-75, 1986. doi: 10.1002/cyto.990070110.
- 4) CROCE A.C., PROSPERI E., SUPINO R., BOTTIROLI G. Anthracycline-induced inhibition of membrane permeability functions dependent on metabolic energy. *Br. J. Cancer*, 54, 943-950, 1986. doi:10.1038/bjc.1986.265.
- 5) BROVELLI A., SEPPI C., BALDUINI G., BOTTIROLI G., CROCE A.C. Organization of membrane constituents in human erythrocytes of different age. *Biomed. Biochim. Acta*, 46, 72-76, 1987.
- 6) BOTTIROLI G., CROCE A.C., RAMPONI R. Microspectrofluorimetric analysis of porphyrin intracellular turnover. *Méd. Biol. Environn.*, 15, 89-94, 1987.
- 7) BOTTIROLI G., RAMPONI R., CROCE A.C. Quantitative analysis of intracellular behaviour of porphyrins. *Photochem. Photobiol.*, 46, 663-667, 1987. doi: 10.1111/j.1751-1097.1987.tb04829.x
- 8) CUBEDDU R., RAMPONI R., SACCHI C.A., BOTTIROLI G., CROCE A.C., SPINELLI P., DAL FANTE M., TRUSCOTT T.G., KEIR W.F. Photophysical properties of hematoporphyrin compounds for tumor diagnosis and therapy. In: *Laser in Medicine (Proceedings of the First European Workshop on Lasers in Medicine, Kolimpari, Chania, Crete, Greece, April 26-May 3, pp. 97-112, 1987)*. Ed. Konstadinos Siomos, Telekanakis, Chania, Creta, Greece. Commission of the European Communities, Commission of the European Communities. Joint Research Centre
- 9) CROCE A.C., BOTTIROLI G., PROSPERI E., SUPINO R., STOWARD P.J. Limitations of the quantitative cytochemical assay of catechol oxidase in melanoma cells. *Histochem. J.*, 20, 595-602, 1988. doi: 10.1007/BF01324077
- 10) PROSPERI E., CROCE A.C., SUPINO R., BOTTIROLI G. Metabolic energy availability and proliferative activity in Adriamycin-treated cells. *Anticancer Res.*, 9, 203-208, 1989. PMID: 2705748
- 11) BOTTIROLI G., CROCE A.C., GERZELI G., BARNI S. DNA double staining for a fluorescence energy transfer study of chromatin in liver cell. *Cell Biophys.*, 15, 249-263, 1989. doi: 10.1007/BF02989687
- 12) BOTTIROLI G., CROCE A.C., VAGHI P. Equilibrium among hematoporphyrin derivative components. II. Effect of esterase activity. *Photochem. Photobiol.*, 51, 169-174, 1990. doi: 10.1111/j.1751-1097.1990.tb01699.x
- 13) CROCE A.C., WYROBA E., BOTTIROLI G. Uptake and distribution of haematoporphyrin derivative in the unicellular eukariote Paramecium. *J. Photochem. Photobiol., B: Biology*, 6, 405-417, 1990. [http://dx.doi.org/10.1016/1011-1344\(90\)85114-C](http://dx.doi.org/10.1016/1011-1344(90)85114-C).
- 14) BOTTIROLI G., CROCE A.C., RAMPONI R., VAGHI P. Intracellular fluorescence analysis of disulfonated aluminum phthalocyanine and photofrin II. A comparative study. *Méd. Biol. Environn.*, 19, 29-34, 1991.

- 15) CROCE A.C., MARES V., VAGHI P., BOTTIROLI G. Photofrin II accumulation in C6 glioma cells in cultures under different growth conditions. *Méd. Biol. Environn.*, 19, 37-41, 1991.
- 16) BOTTIROLI G., CROCE A.C., RAMPONI R. Fluorescence resonance energy transfer imaging as a tool for *in situ* evaluation of cell morphofunctional characteristics. *J. Photochem. Photobiol.*, 12, 413-416, 1992. [http://dx.doi.org/10.1016/1011-1344\(92\)85045-V](http://dx.doi.org/10.1016/1011-1344(92)85045-V).
- 17) BOTTIROLI G., RAMPONI R., CROCE A.C., RESCIGNO G., NAZARI S., ZONTA A. High frequency perfusion fluorometry (HFPP): A new technique to assess bronchial mucosa blood perfusion. In: *Physiological Monitoring and Early Detection Diagnostic Methods*, Soc. Photo. Optical Instrum. Eng. Los Angeles, Ca, USA, 1641, p. 205-212, 1992. doi: 10.1117/12.59366
- 18) BOTTIROLI G., CROCE A.C., RAMPONI R., VAGHI P. Distribution of di-sulfonated aluminum phthalocyanine and photofrin II in living cells: a comparative fluorimetric study. *Photochem. Photobiol.* 55, 575-585, 1992. doi: 10.1111/j.1751-1097.1992.tb04280.x
- 19) SUPINO R., MARIANI M., COLOMBO A., PROSPERI E., CROCE A.C., BOTTIROLI G. Comparative studies on the effects of Doxorubicin and differentiation inducing agents on B16 melanoma cells. *Eur. J. Cancer*, 28A, 778-783, 1992. doi: [http://dx.doi.org/10.1016/0959-8049\(92\)90114-H](http://dx.doi.org/10.1016/0959-8049(92)90114-H).
- 20) MARCHESINI R., BRAMBILLA M., PIGNOLI E., BOTTIROLI G., CROCE A.C., SPINELLI P., DI PALMA S. Light-induced fluorescence spectroscopy of adenomas, adenocarcinomas and non-neoplastic mucosa in human colon. I. *In vitro* measurements. *J. Photochem. Photobiol.: B*, 14, 219-230, 1992. [http://dx.doi.org/10.1016/1011-1344\(92\)85100-9](http://dx.doi.org/10.1016/1011-1344(92)85100-9).
- 21) CROCE A.C., WYROBA E., BOTTIROLI G. Distribution and retention of rose bengal and disulphonated aluminum phthalocyanine: a comparative study in unicellular eukariote. *J. Photochem. Photobiol.: B*, 16, 319-330, 1992. [http://dx.doi.org/10.1016/1011-1344\(92\)80019-R](http://dx.doi.org/10.1016/1011-1344(92)80019-R).
- 22) CROCE A.C., WYROBA E., CUZZONI C., BOTTIROLI G. Localization and persistence of rose bengal in unicellular eukariote and in experimental tumor. In: *Photodynamic Therapy and Biomedical Lasers*. Ed.s: Spinelli P., Dal Fante M. and Marchesini R. Elsevier Science Publishers B.V. Milan, Italy, pp. 737-741, 1992. ISBN 0444814302, 9780444814302
- 23) BOTTIROLI G., DAL FANTE M., MARCHESINI R., CROCE A.C., CUZZONI C., DI PALMA S., PIGNOLI E., SPINELLI P. Naturally-occurring fluorescence of adenocarcinomas, adenomas and non-neoplastic mucosa of human colon: endoscopic and microscopic spectrofluorometry. In: *Photodynamic Therapy and Biomedical Lasers*. Ed.s: Spinelli P., Dal Fante M. and Marchesini R. Elsevier Science Publishers B.V. Milan, Italy, pp. 898-902, 1992. ISBN 0444814302, 9780444814302
- 24) CHIARAVIGLIO D., ZONTA A., RESCIGNO G., CUZZONI C., CALAMITA L., CLERICI A., PINELLI T., FOSSATI F., ALTIERI S., PEROTTI A., MINOIA C., CAPELLI E., RIEF H., RICCHENNA R., BOTTIROLI G., CROCE A.C. Feasibility study of boron neutron-capture therapy for inoperable liver cancers. *Proceedings 4th International Symp On Neutron Capture Therapy For Cancer Location: Sydney, Australia (04-07 December, 1990)*. In: *Progress In Neutron Capture Therapy For Cancer*. Eds: Allen, BJ; Moore, DE; Harrington, BV. Pages: 497-500, 1992. Springer London . ISBN 1461364949, 9781461364948
- 25) BOTTIROLI G., CROCE, A.C., RESCIGNO G., NAZARI S., ZONTA, A. High-frequency perfusion fluorometry (HFPP) - a new technique to assess bronchial-mucosa blood perfusion. In: *Physiological Monitoring And Early Detection Diagnostic Methods*. Book Series: *Proceedings Of The Society Of Photo-Optical Instrumentation Engineers (SPIE)*. Ed: MANG, TS; Volume: 1641. Pages: 238-245. 1992. ISBN 9780819407870. doi: 10.1117/12.59366.
- 26) BOTTIROLI G., MARCHESINI R., CROCE A.C., DAL FANTE M., CUZZONI C., DI PALMA S., SPINELLI P. Autofluorescence of normal and tumor mucosa of human colon. A comprehensive analysis. In: *Progress in Biomedical Optics, Physiological Imaging, Spectroscopy, and Early-Detection Diagnostic Methods*. Ed.s: R. Barbour, M.J. Carvlin. *Proceedings Of The Society Of Photo-Optical Instrumentation Engineers (SPIE)*. Los Angeles, Ca, USA, 1887, p. 205-212, 1993. doi: 10.1117/12.151183

- 27) BOTTIROLI G., CROCE A.C., PELLICCIARI C., RAMPONI R. Propidium iodide and the thiol-specific reagent DACM as a dye pair for fluorescence resonance energy transfer analysis: an application to mouse sperm chromatin. *Cytometry*, 15, 106-116, 1994. doi: 10.1002/cyto.990150204
- 28) REDI C.A., ZUCCOTTI M., CROCE A.C., BOTTIROLI G. Vari trattamenti chimici e fisici inducono decondensazione della cromatina dello spermatozoo umano. In: *La Medicina della Riproduzione. Dalla Ricerca di Base alla Clinica*. Padova, 17-19 Febbraio, pp. 203-210, 1994. Foresta C., Isidori A., Scandellari C. Eds., Panda Edizioni, Padova.
- 29) CROCE A.C., LOCATELLI D., MARCHESINI R., PIGNOLI E., TOMATIS., CUZZONI C., DI PALMA S., BOTTIROLI G. "Ex-vivo" characterization of natural fluorescence in non-neoplastic and neoplastic tissue in human colon. *Méd. Biol. Environn.*, 22, 139-145, 1994.
- 30) BOTTIROLI G., CROCE A.C., MARCHESINI R., PIGNOLI E., TOMATIS., LOCATELLI D., DI PALMA S. "Ex vivo" microfluorometric study as a basis to define the potentials of auto-fluorescence in the diagnosis of colonic tumor mucosa. In: *Progress in Biomedical Optics, EUROPTO Series, Optical Biopsy*. Ed.s: Cubeddu R., Svanberg S., Van Der Berg H. *Proceedings of SPIE*, 2081, p. 25-32. Bellingham, (Wa), USA, 1994. ISBN 9780819413482. doi: 10.1117/12.166833.
- 31) CUBEDDU R., SOZZI C., TARONI P., VALENTINI G., BOTTIROLI G., CROCE A.C. Ablation of brain by Erbium laser: study of dynamic behaviour and tissue damage. In: *Progress in Biomedical Optics, EUROPTO Series, Laser and Tissue Interaction*. Ed.s: Van Gemert M., Svaasand L.O., *Proceedings of SPIE*, 2077, p. 13-20. Bellingham, (Wa), USA, 1994. doi: 10.1117/12.168021.
- 32) MONICI M., AGATI G., FUSI F., BERNABEI A., CAPORALE R., ROSSI FERRINI P., CROCE A.C., BOTTIROLI G., CIONCOLINI S., INNOCENTI A., PRATESI R. Identification of haematic cells by spectroscopic analysis on the intrinsic fluorescence. In: *Progress in Biomedical Optics, EUROPTO Series, Biomedical Optoelectronic Devices and Systems II*. Ed.s: N. Croitoru, N. Kroo, M. Miyagi, R. Pratesi, J.M. Wolfrum. *Proceedings of SPIE*, 2328, 204-211, Bellingham, (Wa),USA, 1994. doi: 10.1117/12.197511.
- 33) BOTTIROLI G., BALZARINI P., CROCE A.C., LOCATELLI D., VACCINO S., PELLICCIARI C. Fluorescence resonance energy transfer (FRET) microscopy: A tool for "in situ" study of cellular structures. In: *Progress in Biomedical Optics, EUROPTO Series, Optical and Imaging Techniques in Biomedicine*. Ed.s: H.J. Foth, A. Lewis, H.Podbielska, M.R. Nicoud, H. Schneckenburger, A. Wilson Ed.s, *Proceedings of SPIE*, 2329, 236-243. Bellingham, (Wa), USA, 1994. doi: 10.1117/12.200887.
- 34) MARCHESINI R., PIGNOLI E., TOMATIS S., FUMAGALLI S., SICHIROLLO A.E., DI PALMA S., DAL FANTE M., SPINELLI P., CROCE A.C., BOTTIROLI G. Ex vivo optical properties of human colon tissue. *Lasers Surg. Med.*, 15, 351-357, 1994. doi: 10.1002/lsm.1900150404
- 35) MARCHESINI R., FUMAGALLI S., PIGNOLI E., SICHIROLLO A., TOMATIS S., DI PALMA S., DAL FANTE M., SPINELLI P., CROCE A.C., BOTTIROLI G. Light-induced fluorescence of human colon tissue: dependence on histological and histochemical properties studied by means of a simplified model for simulation. In: *Optical Biopsy and Fluorescence Spectroscopy and Imaging*, Ed.s: Cubeddu R., Marchesini R., Mordon s., Svanberg K., Rinneberg H., Wagnières G., *Proceedings of SPIE*, 2324, 76-83. Bellingham,(Wa),USA, 1995. doi: 10.1117/12.198704
- 36) BOTTIROLI G., CROCE A.C., LOCATELLI D., MARCHESINI R., PIGNOLI E., TOMATIS S., CUZZONI C., DI PALMA S., DAL FANTE M., SPINELLI P. Natural fluorescence of normal and neoplastic human colon: a comprehensive "ex vivo" study. *Lasers Surg. Med.*, 16, 48-60, 1995. doi: 10.1002/lsm.1900160107.
- 37) CROCE A.C., VAGHI P., LOCATELLI D., RESCIGNO G., BOTTIROLI G. Accumulation and persistence of tetraphenylporphyrine-tetrasulfonate in rat experimental tumor: Influence of the tissue environment. *Méd. Biol. Environm.*, 23, 12-17, 1995. ISSN : 0302-0800
- 38) MONICI M., PRATESI R., BERNABEI P.A., CAPORALE R., CROCE A.C., BOTTIROLI G. Natural fluorescence of white blood cells: spectroscopic and imaging study. *J. Photochem. Photobiol.*, 30, 29 - 37, 1995. [http://dx.doi.org/10.1016/1011-1344\(95\)07149-V](http://dx.doi.org/10.1016/1011-1344(95)07149-V).

- 39) CROCE A.C., BALZARINI P., BAGLIONI P., LO NOSTRO P., MONICI M., BERNABEI P.A., BOTTIROLI G. Fotosensibilizzanti impiegati come substrati fluorogenici per il miglioramento della specificità della diagnosi per fluorescenza e della terapia fotodinamica dei tumori. In: *Laser e Luce in Chirurgia e Medicina ed in Biotecnologia*. Ed.: R. Pratesi. Centro Stampa 2P, Pontassieve (Fi), 1995, p. 349-356.
- 40) MONICI M., AGATI G., FUSI F., BERNABEI P.A., CAPORALE R., ROSSI FERRINI P., CROCE A.C., BOTTIROLI G., PRATESI R. La fluorescenza naturale dei leucociti. Possibili applicazioni nella diagnostica medica. In: *Laser e Luce in Chirurgia e Medicina ed in Biotecnologia*. Ed.: R. Pratesi, Centro Sampa 2P, Pontassieve (Fi), 1995, p. 449-458.
- 41) PRATESI R., CROCE A.C., BALZARINI P., BOTTIROLI G., BAGLIONI P., LO NOSTRO P., MONICI M. A new approach for selective targeting in photodynamic therapy. In: *Laser Spectroscopy*. Ed.s: M. Inguscio, M. Allegrini, A. Sasso. World Scientific Publishing Co., Singapore, London, 1996, p. 427-429. ISBN 9810224478 9789810224479
- 42) CROCE A.C., SPANO A., BALZARINI P., LOCATELLI D., BARNI S., PIPPIA P., BOTTIROLI G. Autofluorescence properties of normal and transformed fibroblasts. In: *Optical Biopsies and Microscopic Techniques*. Ed.s: Bigio IJ. Grundfest W.S.; Katarina Svanberg K.; Scheckenburger H., Viallet P. *Proceedings of SPIE*, 2926, 108-112, Bellingham,(Wa),USA, 1996. doi: 10.1117/12.260801.
- 43) BOTTIROLI G., BALZARINI P., CROCE A.C., RIZZO R., DAL FANTE M., MARCHESINI R. Autofluorescence properties of colonic mucosa: dependence on excitation wavelength. In: *Optical and Imaging Techniques for Biomonitoring II*, Ed.s: Marchesini R., Podbielska H. *Proceedings of SPIE*, 2927, 173-179, Bellingham, (Wa), USA, 1996. doi: 10.1117/12.260639.
- 44) BOTTIROLI G., CROCE A.C., BALZARINI P., LOCATELLI D., BAGLIONI P., LO NOSTRO P., MONICI M., PRATESI R. Enzyme assisted cell photosensitization: A proposal to tumor therapy and diagnosis. The rose bengal fluorogenic substrate. *Photochem. Photobiol.*, 66, 374-383, 1997. doi: 10.1111/j.1751-1097.1997.tb03161.x
- 45) CUBEDDU R., SOZZI C., TARONI P., VALENTINI G., BOTTIROLI G., CROCE A.C. Study of mechanical and thermal damage in brain tissue after ablation by Erbium-YAG laser. *Lasers in Med. Sci.*, 12, 21-30, 1997. doi: 10.1007/BF02763918.
- 46) CROCE A.C., BOTTIROLI G., MARES V., LISA V., KRAJCI D. Modulation of Photofrin II accumulation in C6 glioma cells by stimulation of β -adrenergic receptors. In: *Photochemotherapy: Photochemotherapy and Other Modalities III*. Ed.s: E. Ehrenberg., K. Berg, J. Moan., Malik Z. and A. Katzir. *Proceedings of SPIE*, Bellingham, (Wa), USA, 3191, 354-358, 1997. doi: 10.1117/12.297827.
- 47) BOTTIROLI G., CROCE A.C., LOCATELLI D., NANO R., GIOMBELLI E., MESSINA A., BENERICETTI E. Autofluorescence of normal and neoplastic human brain tissue: an aid for intraoperative delineation of tumor resection margins. In: *Optical and Imaging Techniques for Biomonitoring III*. Ed.s: H.J. Foth, R. Marchesini, H. Poldbielska. and A. Katzir. *Proceedings of SPIE*, 3196, 183-191, Bellingham (Wa) USA, 1998. doi: 10.1117/12.297933.
- 48) BOTTIROLI G., CROCE A.C., LOCATELLI D., NANO R., GIOMBELLI E., MESSINA A., BENERICETTI E. Brain tissue autofluorescence: an aid for intraoperative delineation of tumor resection margins. *Cancer Detect. Prev.*, 22, 330-339, 1998. PMID: 9674876.
- 49) CROCE A.C., MARES V., LISA V., KRAJCI D., BOTTIROLI G. Modulation of porphyrin derivatives accumulation in C6 glioma cells by drugs acting on β -adrenergic receptors. A spectrofluorometric study. *Photochem. Photobiol.*, 68, 222-226, 1998. doi: 10.1111/j.1751-1097.1998.tb02493.x
- 50) CROCE A.C., SPANO A., LOCATELLI D., BARNI S., SCIOLA L., BOTTIROLI G. Dependence of fibroblast autofluorescence properties on normal and transformed conditions. Role of the metabolic activity. *Photochem. Photobiol.*, 69, 364-374, 1999. doi: 10.1111/j.1751-1097.1999.tb03300.x.
- 51) BARNI S., BERTONE V., CROCE A.C., BOTTIROLI G., BERNINI F., GERZELI G. Increase in liver pigmentation during natural hibernation in some amphibians. *J. of Anatomy*, 195, 19-25, 1999. doi: 10.1046/j.1469-7580.1999.19510019.x

- 52) BOTTIROLI G., CROCE A.C., LOCATELLI D., LANZA K.S., GIOMBELLI E., BENERICETTI E. Further evidences of tissue autofluorescence potentials for the intraoperative delineation of brain tumor resection margins. In: Optical and Imaging Techniques for Biomonitoring IV. Ed.s: M. Dal Fante, H.J. Foth, N. Krasner, R. Marchesini and H. Podbielska. Proceedings of SPIE, 3567, 164-171, Bellingham (Wa) USA, 1999. doi: 10.1117/12.339181
- 53) BOTTIROLI G., CROCE A.C., LANZA K.A., NANO R., TANCIONI F., CERONI M., BENERICETTI E. Tissue autofluorescence potential for the intraoperative delineation of brain resection margins. In: Trends in Optics and Photonics, OSA Technical Digest (Optical Society of America). Biomedical Topical Meetings, 21-23, Washington DC, USA, 2000/ Biomedical Optical Spectroscopy and Diagnostics, T. Li, ed., Vol. 38 of OSA Trends in Optics and Photonics, paper SuB5. <http://www.opticsinfobase.org/abstract.cfm?URI=BOSD-2000-SuB5> ISBN 10 155752632X
- 54) CROCE A.C., SPANO A., LANZA K.S., LOCATELLI D., BARNI S., SCIOLA S., BOTTIROLI G. Autofluorescence in single living cells: A parameter for in situ, real-time monitoring of metabolism. In: Trends in Optics and Photonics, OSA Technical Digest (Optical Society of America). Biomedical Topical Meetings, 38, 215-216, Washington DC, USA, 2000/Biomedical Optical Spectroscopy and Diagnostics, T. Li, Ed., Vol. 38 of OSA Trends in Optics and Photonics (Optical Society of America, 2000), paper MC4. <http://www.opticsinfobase.org/abstract.cfm?URI=BOSD-2000-MC4>. ISBN 10 155752632X
- 55) CROCE A.C., SUPINO R., LANZA K.S., LOCATELLI D., BAGLIONI P., BOTTIROLI G. Photosensitizer accumulation in spontaneous multidrug resistant cells: a comparative study with Rhodamine 123, Rose Bengal acetate and Photofrin. Photochem. Photobiol. Sci., 1, 71-78, 2002. doi: 10.1039/B108346E.
- 56) CROCE A.C., FIORANI S., LOCATELLI D., NANO R., BOTTIROLI G., CERONI M., TANCIONI F., GIOMBELLI E., BENERICETTI E. Autofluorescence-based real time diagnosis for selective resection of tumors in neurosurgery. In: OSA Biomedical Topical Meetings: Clinical fluorescence; OSA Technical Digest (Optical Society of America, Washington DC, 2002, pp. 4-498. ISBN 1557527024, 9781557527028 / Biomedical Topical Meeting, (Optical Society of America, 2002), paper TuC6. <http://www.opticsinfobase.org/abstract.cfm?URI=BIO-2002-TuC6>
- 57) CROCE A.C., FIORANI S., LOCATELLI D., NANO R., CERONI M., TANCIONI F., GIOMBELLI E., BENERICETTI E., BOTTIROLI G. Diagnostic potential of autofluorescence for an assisted intraoperative delineation of glioblastoma resection margins. Photochem. Photobiol., 77, 309-318, 2003. doi: 10.1562/0031-8655(2003)0770309DPOAFA2.0.CO2.
- 58) BOTTIROLI G., CROCE A.C. Tecniche spettroscopiche nell'analisi biottica in vivo (Biopsia Ottica). Istituto Lombardo, Rendiconti Scienze B, 137, pp. 33.58, 2004. **Su invito.**
- 59) CRESPI F., CROCE A.C., FIORANI S., MASALA B., HEIDBREDER C., BOTTIROLI G. - Autofluorescence spectrofluorometry of central nervous system (CNS) neuromediators. Lasers Surg. Med., 34, 39-47 2004. doi: 10.1002/lsm.10240
- 60) BOTTIROLI G., CROCE A.C., BOTTONE M.G., VACCINO S., PELLICCIARI C. G₀-G₁ cell cycle phase transition as revealed by fluorescence resonance energy transfer: analysis of human fibroblast chromatin: Eur. J. Histochem., 48, 37-48, 2004. doi: 10.4081/857.
- 61) CROCE A.C., BOTTIROLI G., SUPINO R., FAVINI E., ZUCO V., ZUNINO F. Subcellular localization of the camptothecin analogues, topotecan and gimatecan. Biochem. Pharmacol. 67, 1035-1045, 2004. doi: 10.1016/j.bcp.2003.10.034
- 62) BOTTIROLI G., CROCE A.C. The autofluorescence spectroscopy of cells and tissue as a tool for biomedical diagnosis. In: Comprehensive Series in Photosciences, Lasers And Current Optical Techniques In Biology. Lasers and Current Optical Techniques in Biology. Ed.s: Giuseppe Palumbo and Riccardo Pratesi. RSC, Books and Databases, Cambridge.U.K. Vol. 4 , pp. 189-210, 2004. **Invited** ISBN 0-85404-321-7. <http://pubs.rsc.org/en/content/ebook/978-0-85404-321-7#!divbookcontent>

- 63) CRESPI F., CROCE A.C., FIORANI S., MASALA B., HEIDBREDE R. C., BOTTIROLI G. *In vivo* autofluorescence spectrofluorometry of central serotonin. *Journal of Neurosci. Methods.*, 140, 67-73, 2004. doi: 10.1016/j.jneumeth.2004.06.019
- 64) CROCE A.C., FERRIGNO A., VAIRETTI M., BERTONE R., FREITAS I., BOTTIROLI G. Autofluorescence properties of isolated rat hepatocytes under different metabolic conditions. *Photochem. Photobiol. Sci.*, 3, 920-926, 2004. doi: 10.1039/b407358d.
- 65) SOLDANI C., BOTTONE M.G., CROCE A.C., FRASCHINI A., BOTTIROLI G. AND PELLICCIARI C. The Golgi apparatus is a primary site of intracellular damage after photosensitization with Rose Bengal acetate. *Eur. J. Histochem.*, 48, 443-448, 2004. doi: 10.4081/919.
- 66) CROCE A.C., FERRIGNO A., VAIRETTI M., BERTONE R., FREITAS I., BOTTIROLI G. Autofluorescence spectroscopy of rat liver during experimental transplantation procedure. An approach for hepatic metabolism assessment. *Photochem. Photobiol. Sci.*, 4, 583-590, 2005. doi: 10.1039/b503586d.
- 67) CROCE A.C., BOTTIROLI G., RODA E., PISU M.B., BERNOCCHI G. Autofluorescence properties of rat cerebellum cortex during postnatal development. *Lasers Surg. Med.*, 38, 598-607, 2006. doi: 10.1002/lsm.20336.
- 68) PETRANGOLINI G., SUPINO R., PRATESI G., BO L.D., TORTORETO M., CROCE A.C., MISIANO P., BELFIORE P., FARINA C., ZUNINO F. Effect of a Novel Vacuolar-H⁺-ATPase Inhibitor on Cell and Tumor Response to Camptothecins. *J. Pharmacol. Exp. Ther.*, 318, 939-946, 2006. doi: 10.1124/jpet.106.103481
- 69) BOTTONE M.G., SOLDANI C., FRASCHINI A., ALPINI C., CROCE A.C., BOTTIROLI G., PELLICCIARI C. Enzyme-assisted photosensitization with rose bengal acetate induces structural and functional alteration of mitochondria in HeLa cells. *Histochem. Cell Biol.*, 127, 263-271, 2007. doi: 10.1007/s00418-006-0235-9.
- 70) SOLDANI C., BOTTONE M.G., FRASCHINI A., CROCE A.C. BOTTIROLI G., SCOVASSI A. I., PELLICCIARI C. Apoptosis as a Consequence of Multiple Organelle Damage in Cultured Tumor Cells after Photosensitization with Rose Bengal Acetate. In: *Cell Apoptosis and Cancer* (Albina W. Taylor, Ed.), Nova Science Publishers Inc., pp. 23-45, 2007. ISBN: 1-60021-506-8. https://www.novapublishers.com/catalog/product_info.php?products_id=5204
- 71) CROCE A.C., DE SIMONE U., VAIRETTI M., FERRIGNO A., BOTTIROLI G. Autofluorescence properties of rat liver under hyper metabolic conditions. *Photochem. Photobiol. Sci.*, 6, 1202-1209, 2007. doi: 10.1039/b707309g.
- 72) SOLDANI C., CROCE A.C., BOTTONE M.G., FRASCHINI A., BIGGIOGERA M., BOTTIROLI G., PELLICCIARI C. Apoptosis in tumour cells photosensitized with Rose Bengal acetate is induced by multiple organelle photodamage. *Histochem Cell Biol.*, 128, 485-495, 2007. doi: 10.1007/s00418-007-0333-3.
- 73) SUPINO R., PETRANGOLINI G., PRATESI G., TORTORETO M., FAVINI E., DAL BO L., CASALINI P., RADAELLI E., CROCE A.C., BOTTIROLI G., MISIANO P., FARINA C., ZUNINO F. Antimetastatic effect of a small molecule vacuolar H⁺-ATPase inhibitor in in vitro and in vivo preclinical studies. *J Pharmacol Exp Ther.*, 324, 15-22, 2008. doi: 10.1124/jpet.107.128587
- 74) CROCE A.C., DE SIMONE U., VAIRETTI M., FERRIGNO A., BONCOMPAGNI E., FREITAS I., BOTTIROLI G. Liver autofluorescence properties in animal model under altered nutritional conditions. *Photochem Photobiol Sci.* 7, 1046-1053, 2008. doi: 10.1039/b804836c.
- 75) BOTTIROLI G., CROCE A.C. Autofluorescence spectroscopy for diagnosis: from cells to tissues. *Energy for Health*, 2, 22-31, 2008. **Invited**. http://www.asalaser.com/sites/default/files/documenti/Energy_for_health_2.pdf
- 76) BOTTONE M.G., SOLDANI C., FRASCHINI A., CROCE A.C., BOTTIROLI G., CAMBONI T., SCOVASSI A.I., PELLICCIARI C. Enzyme-assisted photosensitization activates different apoptotic pathways

in Rose Bengal acetate treated HeLa cells. *Histochem. Cell Biol.*, **131**, 391-399, 2009. doi: 10.1007/s00418-008-0538-0.

77) BOTTIROLI G., CROCE A.C. Optical biopsy: a promising approach for real-time liver steatosis grading. *Liver Int.*, **29**, 321-322, 2009. doi: 10.1111/j.1478-3231.2008.01943.x. **Invited**

78) SUPINO R., SCOVASSI I., CROCE A.C., DAL BO L., FAVINI E., CORBELLI A., FARINA C., MISIANO P., ZUNINO F. Biological effects of a new vacuolar-H₂-ATPase inhibitor in colon carcinoma cell lines. In: *Natural Compounds and Their Role in Apoptotic Cell Signaling Pathways: Ann. N.Y. Acad. Sci.* **1171**: 606–616, 2009. New York Academy of Sciences. ISBN-10: 1573317373. doi: 10.1111/j.1749-6632.2009.04705.x

79) ZUCO V., SUPINO R., FAVINI E., TORTORETO M., CINCINELLI R., CROCE A.C., BUCCI F., PISANO C., ZUNINO F. Efficacy of ST1968 (namitecan) on a topotecan-resistant squamous cell carcinoma. *Biochem. Pharmacol.*, **79**, 535-541, 2010. doi: 10.1016/j.bcp.2009.09.012.

80) CROCE A.C., DE SIMONE U., FREITAS I., BONCOMPAGNI E., NERI D., CILLO U., BOTTIROLI G. Human liver autofluorescence: an intrinsic tissue parameter discriminating normal and diseased conditions. *Lasers Surg. Med.*, **42**, 371-378 2010. doi: 10.1002/lsm.20923.

81) CROCE A.C., SANTAMARIA G., DE SIMONE U., LUCCHINI F., FREITAS I., BOTTIROLI G. Naturally-occurring porphyrins in a spontaneous-tumour bearing mouse model. *Photochem Photobiol Sci.*, **1189-1195**, *10*, 2011. doi: 10.1039/c0pp00375a.

82) CROCE A.C., FASANI E., BOTTONE M.G., DE SIMONE U., SANTIN G., PELLICCIARI C., BOTTIROLI G. Hypocrellin-B acetate as a fluorogenic substrate for enzyme-assisted cell photosensitization. *Photochem. Photobiol. Sci.*, **10**, 1783-1790, 2011. doi: 10.1039/c1pp05136a

83) GIANANTI V., SANTAMARIA G., TORRIGLIA A., AREDIA F., SCOVASSI A.I., BOTTIROLI G., CROCE A.C. Fluorescence properties of the Na⁺/H⁺ exchanger inhibitor HMA (5-(N-hexamethylene)amiloride) are modulated by intracellular pH. *Eur. J. Histochem.*, **56**:e3. doi: 10.4081/ejh.2012.e3.

84) PELLICCIARI C., GIAGNACOVO M., CISTERNA B., COSTANZO M., CROCE A.C., BOTTIROLI G., MALATESTA M. Ultrastructural detection of photosensitizing molecules by fluorescence photoconversion of diaminobenzidine. *Histochem. Cell Biol.* **2013**, **139**:863-71. doi: 10.1007/s00418-012-1071.

85) SANTIN G., PAULIS M., VEZZONI P., PACCHIANA G., BOTTIROLI G., CROCE A.C. Autofluorescence properties of murine embryonic stem cells during spontaneous differentiation phases. *Lasers Surg. Med.* **45**, 597-607, 2013. doi: 10.1002/lsm.22182.

86) SANTIN G., BOTTONE M.G., MALATESTA M., SCOVASSI A.I., BOTTIROLI G., PELLICCIARI C., CROCE A.C. Regulated forms of cell death are induced by the photodynamic action of the fluorogenic substrate, Hypocrellin B-acetate. *J Photochem Photobiol B.* **2013 Aug 5**;125:90-7. doi: 10.1016/j.jphotobiol.2013.05.006.

87) CROCE A.C., FERRIGNO A., SANTIN G., VAIRETTI M., BOTTIROLI G., Bilirubin: an autofluorescence bile biomarker for liver functionality monitoring. *J. Biophotonics.* **7**, 810-817, 2014. doi: 10.1002/jbio.201300039.

88) CROCE A.C., FERRIGNO A., SANTIN G., PICCOLINI V.M., BOTTIROLI G., VAIRETTI M. Autofluorescence of liver tissue and bile: Organ functionality monitoring during ischemia and reoxygenation. *Lasers Surg. Med.*, **46**, 412-421, 2014. doi: 10.1002/lsm.22241

89) CROCE A.C., FERRIGNO A., PICCOLINI V.M., TARANTOLA E., BONCOMPAGNI E., BERTONE V., MILANESI G., FREITAS I., VAIRETTI M., BOTTIROLI G. Integrated autofluorescence characterization of a modified-diet liver model with accumulation of lipids and oxidative stress. *BioMed. Res. Int.*, Vol. 2014, Article ID 803491 doi:10.1155/2014/803491, 2014.

- 90) CROCE A.C., BOTTIROLI G., SANTIN G., PACCHIANA G., VEZZONI P., DI PASQUALE E. Autofluorescence and metabolic signatures in a pig model of differentiation based on induced pluripotent cells and embryonic bodies. *MICROSCOPIE* 11, 52-59, 2014. doi: <http://dx.doi.org/10.4081/microscopie.2014.4991>
- 91) CROCE A.C., BOTTIROLI G. Autofluorescence Spectroscopy and Imaging: A Tool for Biomedical Research and Diagnosis. *Eur. J. Histochem.* 2014 58:2461. doi: 10.4081/ejh.2014.2461. Review.
- 92) CROCE A.C., BOTTIROLI G. New light in flavin autofluorescence. *Eur J Histochem.* 2015. 59:2576. doi: 10.4081/ejh.2015.2576.
- 93) GUAMAN ORTIZ L.M., CROCE A.L., AREDIA F., SAPIENZA S., FIORILLO G., SYEDA T.M., BUZZETTI F., LOMBARDI P., SCOVASSI A.I. Effect of new berberine derivatives on colon cancer cells. *Acta Biochim. Biophys. Sinica* 47, 824-833, 2015. <https://doi.org/10.1093/abbs/gmv077>
- 94) DI PASQUA L.G., BERARDO C., RIZZO V., RICHELMI P., CROCE A.C., VAIRETTI M., FERRIGNO A. MCD diet-induced steatohepatitis is associated with alterations in asymmetric dimethylarginine (ADMA) and its transporters. *Mol. Cell. Biochem.* 2016. 419:147-55. doi: 10.1007/s11010-016-2758-2.
- 95) CROCE A.C., FERRIGNO A., DI PASQUA L.G., BERARDO C., PICCOLINI V.M., BERTONE V., BOTTIROLI G, VAIRETTI M. Autofluorescence discrimination of metabolic fingerprint in nutritional and genetic fatty liver models. *J. Photochem. Photobiol. B.*, 164, 13–20, 2016. doi: 10.1016/j.jphotobiol.2016.09.015.
- 96) CROCE A.C., FERRIGNO A., BERTONE V., PICCOLINI V.M., BERARDO C., DI PASQUA L.G., RIZZO V, BOTTIROLI G, VAIRETTI M. Fatty liver oxidative events monitored by autofluorescence optical diagnosis: a comparison between subnormothermic machine perfusion and conventional cold storage preservation. *Hepatol. Res.* 47, 668-682, 2017- doi:10.1111/hepr.12779.
- 97) CROCE A.C., FERRIGNO A., DI PASQUA L.G., BERARDO C., MANNUCCI b., BOTTIROLI G, VAIRETTI M. Fluorescing fatty acids in rat fatty liver models. *J. Biophotonics.* 2017;10, 905-910. doi: 10.1002/jbio.201600195.
- 98) CROCE A.C., BOTTIROLI G. Autofluorescence Spectroscopy for Monitoring Metabolism in Animal Cells and Tissues. Book chapter in: *Methods Mol Biol.* 2017;1560:15-43. Carlo Pellicciari and Marco Biggiogera (Eds): *Histochemistry of Single Molecules.* Springer Nature, Heidelberg, London. doi: 10.1007/978-1-4939-6788-9_2.
- 99) CROCE A.C., BOTTIROLI G. Lipids: Evergreen autofluorescent biomarkers for the liver functional profiling. *Eur. J. Histochem.* 2017; 61(2):2808. doi: 10.4081/ejh.2017.2808.
- 100) CROCE A.C., FERRIGNO A., DI PASQUA L.G., BERARDO C., BOTTIROLI G, VAIRETTI M. NAD(P)H and flavin autofluorescence correlation with ATP in rat livers with different metabolic steady state conditions. *Photochem. Photobiol.* 2017. doi: 10.1111/php.12804. 93:1519-1524. doi: 10.1111/php.12804.
- 101) FERRIGNO A., DI PASQUA L.G., BERARDO C., SICILIANO V., RIZZO V., MANNUCCI B., RICHELMI P., CROCE A.C., VAIRETTI M. Liver Graft Susceptibility during Static Cold Storage and Dynamic Machine Perfusion: DCD versus Fatty Livers. *Int. J. Mol. Sci.* 2018; 19(1). pii: E109 (published on line Dec 31, 2017). doi: 10.3390/ijms19010109.
- 102) CROCE A.C., FERRIGNO A., BOTTIROLI G, VAIRETTI M. Autofluorescence-based optical biopsy: An effective diagnostic tool in hepatology. *Liver Int.* 2018; 38:1160-1174. doi: 10.1111/liv.13753.
- 103) CROCE A.C., BOTTIROLI G., DI PASQUA L.G., BERARDO C., SICILIANO V., RIZZO V., VAIRETTI M., FERRIGNO A. Serum and Hepatic Autofluorescence as a Real-Time Diagnostic Tool for Early Cholestasis Assessment. *Int. J. Mol. Sci.* 2018 Sep 5;19(9). pii: E2634. doi: 10.3390/ijms19092634.
- 104) CISTERNA B., BOSCHI F., CROCE A.C, PODDA R., ZANZONI S., DEGLI INNOCENTI D., BERNARDI P., COSTANZO M., MARZOLA P., COVI V., TABARACCI G., MALATESTA M. Ozone treatment of grapes during withering for Amarone wine: a multimodal imaging analysis. *Microsc. Microanal.* 2018 Oct;24:564-573. doi: 10.1017/S1431927618015209.

105) CISTERNA, B., BOSCHI, F., CROCE, A.C., PODDA, R., ZANZONI, S., DEGL'INNOCENTI, D., BERNARDI, P., COSTANZO, M., MARZOLA, P., COVI, V., TABARACCI, G., MALATESTA, M. (2018). Imaging techniques for the evaluation of grapes in withering for amarone wine production. In: Cibi e bevande al microscopio: tecniche di imaging per l'analisi degli alimenti. Ed.s: M. Malatesta, C. Pellicciari, A. Robbiati Bianchi. Istituto Lombardo - Accademia Di Scienze e Lettere - Incontri Di Studio. PAGEPress®, Pavia, Italy. 2018 Nov, 41-48. <https://doi.org/10.4081/incontri.2018.436>.

106) PALLADINI G., DI PASQUA L. G., BERARDO C., SICILIANO V., RICHELMI P., MANNUCCI B., CROCE A.C., RIZZO V., PERLINI P., VAIRETTI M., FERRIGNO A. Fatty Acid Desaturase Involvement in Non-Alcoholic Fatty Liver Disease Rat Models: Oxidative Stress Versus Metalloproteinases. *Nutrients*. 2019 Apr; 11(4): pii: E799. doi: 10.3390/nu11040799.

107) CROCE AC, FERRIGNO A, BERARDO C, BOTTIROLI G, VAIRETTI M, DI PASQUA LG. Spectrofluorometric analysis of autofluorescing components of crude serum from a rat liver model of ischemia and reperfusion. *Molecules*. 2020 Mar 14;25(6). pii: E1327. doi: 10.3390/molecules25061327.

BREVETTI

BOTTIROLI G., CROCE A.C., NAZZARI S., RAMPONI R., RESCIGNO G. - Apparecchiatura per la valutazione endoscopica della entità e dell'origine della vascolarizzazione di organi mediante tecnica fluorimetrica.

Deposito Domanda Italiana di brevetto per invenzione industriale, domanda n° MI92 A 002099, 10 settembre 1992.

BOTTIROLI G., CROCE A.C., BAGLIONI P., MONICI M.

- Utilizzo di substrati fluorogenici suscettibili di fotoattivazione per la terapia fotodinamica dei tumori.

Deposito Domanda Italiana di brevetto per invenzione industriale, domanda n° MI95/ A 001560, 19 luglio 1995.

Successiva estensione (estero) come brevetto PCT n. PCT/EP96/03201 del 19 luglio 1996, accettato della United States Patent, Patent Number 6,036,941, in data 14 marzo 2000.