

## PUBLICATIONS of ANDREA OTTOLENGHI

### International Publications in extenso

#### 1985

- [1] A. Ottolenghi, *Simulation of the short-term effects of a counterforce nuclear attack against Italy*, Scientia, anno LXXIX-V-XII, 120 p. 435-454 (1985).

#### 1987

- [2] A. Ottolenghi, *Limited Nuclear war in Europe, in The Effects of Nuclear War on Health and Health Services*, report of the WHO Management Group on Follow-up of Resolution WHA36.28, p. 121-131 World Health Organization, Gineva, 1987 (published by the World Health Organization in 10 languages: Arabic, Chinese, English, French, German, Russian, Spanish, Czech; Italian, Swedish).  
<http://apps.who.int/iris/handle/10665/39199>

#### 1988

- [3] A. Ottolenghi, *Simulation of the Short-term Effects of a "Limited" Nuclear War in Europe*, in *Perspectives on the Arms Race*, Carlton D. e Schaerf C. eds., p. 59-99, Macmillan, London, St Martin's Press, New York ISBN: 0312027036 (1989).

#### 1989

- [4] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi, *Growth Kinetics of C3H10T1/2 exposed to low LET radiations*. Int. J. Radiat. Biol. 55, London, 641-651 (1989).
- [5] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi. *Transformation of C3H10T1/2 cells with 244-Cm alpha particles at low and high dose rates*. In *Cell Transformation and Radiation-induced Cancer* (K. H. Chadwick, C. Seymour and B. Barnhart eds.) pp.333-340, Adam Hilger, Bristol and New York (1989).
- [6] D. Bettega, P. Calzolari, A. Ottolenghi, E. Rimoldi and L. Tallone Lombardi. *Cell density effect of transformation frequencies in C3H10T1/2 exposed to X-rays*. Int. J. Radiat. Biol., London, 56, 989-998 (1989).

#### 1990

- [7] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi. *Oncogenic transformation induced in vitro by radiation of varying LET*. Radiation Protection Dosimetry, Ashford, Kent, UK, 31, pp. 279-283 (1990).

#### 1991

- [8] D. Bettega, P. Calzolari, A. Ottolenghi, and L. Tallone Lombardi. *Criteria and techniques for analysing cell survival data*, Radiation and Environmental Biophysics, Berlin, 30, p. 53-70 (1991).
- [9] A. Ottolenghi, D. Bettega, P. Calzolari and L. Tallone Lombardi. *Cell survival: how to characterize cell response to radiation*. In: *Recent Developments in Radiation Biology*, C. Seymour and C. Mothersill Eds., p. 40-45 Taylor and Francis Ltd., London (1991).
- [10] A. Ottolenghi, C. K. Hill, D. Bettega, P. Calzolari and L. Tallone Lombardi. *Transformation of C3H10T1/2 cells exposed to radiations of different LETs*. In *Recent Developments in Radiation Biology*, C. Seymour and C. Mothersill Eds., p. 208-213 Taylor and Francis Ltd., London (1991).
- [11] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi. *Neoplastic Transformation in vitro induced by high LET radiation: the "inverse dose-rate effect"*. In: *Topics on biomedical physics*. L. Andreucci and A. Schenone Eds., pp 228-239, World Scientific, London (1991).
- [12] A. Ottolenghi and L. Tallone Lombardi. *Radiation Induced Transformation in C3H10T1/2 Cells: Dose-Effect Curve Models*. In *Biophysical Modelling of Radiation Effects*. K.H. Chadwick, G. Moschini, M.N. Varma Eds., pp 91-98 Adam Hilger Bristol and New York, (1991).

#### 1992

- [13] A. Ottolenghi, D. Bettega, P. Calzolari, G. Noris Chiorda and L. Tallone Lombardi. *Radiocarcinogenesis in vitro: "Inverse dose-rate effect"*. Il Nuovo Cimento 14D, 1191-1202 (1992)

#### 1993

- [14] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Transformation frequencies and cell kinetic modifications in C3H10T1/2 cells exposed to single and fractionated doses of 4.3 MeV  $\alpha$ -particles*. Physica Medica, Pisa IX,S1, 12-15 (1993).

#### 1994

- [15] A. Ottolenghi., D. Bettega, P. Calzolari, C. K. Hill, G. Noris Chiorda and L. Tallone. *Transformation induced in C3H10T1/2 cells exposed to high LET radiations: an interpretation of the published data* Radiat. Prot. Dosimetry, Ashford, Kent, UK, 52, 201-206 (1994).
- [16] A. Ottolenghi, D. Bettega, P. Calzolari, G. Noris Chiorda, and L. Tallone Lombardi. *Dose-protraction effects on neoplastic transformation: theoretical predictions*. Physica Medica, Pisa, 10, 72-74 (1994).
- [17] M. Durante, G. Gialanella, G.F. Grossi, M. Nappo, M. Pugliese, D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Radiation-induced chromosomal aberrations in mouse*

- 10T1/2 cells: dependence on the cell-cycle stage at the time of irradiation.* I.J. Radiat. Biol., London, 65, 437-447 (1994)
- [18] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola, Ch. Hansen, P. Roth, E. Werner. *Proton nuclear activation in stable tracer technique for ruthenium metabolism studies.* Nucl. Instr. Meth. Phys. Res., Amsterdam, A353, 440-443 (1994).
- [19] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola, Ch. Hansen, P. Roth, E. Werner. *Effects of tracer amounts in tellurium biokinetics studies.* Medizinische Physik, Frankfurt, Germany, 25, 318-319 (1994)
- 1995**
- [20] A. Ottolenghi, M. Merzagora, L. Tallone, M. Durante, H.G. Paretzke, W.E. Wilson, *The quality of DNA double-strand breaks: a Monte Carlo simulation of the end-structure of strand breaks produced by protons and alpha particles*, Radiat and Environ Biophysics, Berlin, Vol. 34, No 4, 239-244 (1995).
- [21] M. C. Cantone, D. de Bartolo, A. Giussani, A.Ottolenghi, F. Nusslin, Ch. Hansen, P. Roth and E. Werner, *Influence of the administered mass of tellurium on plasma clearance in rabbits.* Appl. Radiat. Isot., Exeter, U.K., Vol 46, No 10, 987-990 (1995).
- [22] M. C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L.Pirola, Ch. Hansen, P. Roth and E. Werner, *Proton activation analysis of stable isotopes for a molybdenum metabolism study in humans*, Med. Phys., New York, Vol. 22, No 8, 1293-1298 (1995)
- [23] A. Ottolenghi, M. Merzagora, H. G. Paretzke. *A mechanistic approach to evaluate biological effectiveness of hadrons, based on DNA damage simulations.* In: GSI-Report-95-10 (ISSN 0171-4546), Darmstadt, Germany, pp 117-120 (1995).
- [24] P. W. Cattaneo, A. Ottolenghi, N. Redaelli, D. Scannicchio, *An automatic system for beam feedback control.* In: GSI-Report-95-10 (ISSN 0171-4546), Darmstadt, Germany, pp 213-216 (1995).
- [25] E. Werner, P. Roth, Ch. Hansen, M. C. Cantone, D. de Bartolo, A. Giussani, A. Ottolenghi, F., Nusslin, *Biokinetics of trace metals*, Medizinische Physik, Frankfurt, Germany, 26, 420-421 (1995)
- 1996**
- [26] A. Ottolenghi, M. Merzagora, M. Durante, *A comparison between RBE for inactivation, single track lethal damage and quality of dsb induced by protons and alpha particles of different energies*, In: *Radiations from Theory to Multidisciplinary Applications*, P. Salvadori ed., Editrici Felici, Pisa, 211-214 (1996).
- [27] M. Belli, M. Balzi, A. Becciolini, D. Bettega, A. Buttafava, A. Campa, F. Casamassima, R. Cherubini, M. Durante, I. Ermolli, A. Faucitano, M. Frisoni, G. Grossi, L. Guidoni, M. Martinotti, E. Menapace, M. Merzagora, G. Moschini, A. Ottolenghi, S. Pacini, G. Pedrali-Noy, S. Porciani, M. Rossetti, M. Ruggiero, M.A. Tabocchini. *Radiobiology.* In: *The Rita Network and the Design of Compact Proton Accelerators*. U. Amaldi, M Grandolfo and L. Picardi eds. INFN-LNF Divisione ricerca, Frascati, pp 79-113 ISBN8886409087 BIDCFI0392930. (1996).
- [28] L. Badano, G. Ferrigno, A. Pedotti, P.W. Cattaneo, D. Scannicchio, F. Corbella, F. Gerardi, P. Negri, A. Ottolenghi, N. Redaelli, R. Orecchia, G. Tosi. *Research project in dosimetry, treatment planning, patient alignment and radiometabolic treatment.* In: *The Rita Network and the Design of Compact Proton Accelerators*. U. Amaldi, M Grandolfo and L. Picardi eds. INFN, Frascati, pp 129-145 (1996). ISBN8886409087 BIDCFI0392930
- [29] G. Gagliardi, I. Lax, A. Ottolenghi, L.E. Rutqvist. *Long term cardiac mortality after radiotherapy of breast cancer - Application of the relative seriality model.* The British J. of Radiology. Huddersfield, UK 69, 839-846 (1996).
- [30] M.C. Cantone, D. de Bartolo, A. Giussani, A. Ottolenghi, Ch. Hansen, P. Roth, E. Werner. *Application of proton activation for biokinetic studies in humans using stable isotopes.* PSI Rep. 1995, Villigen, Switzerland, Annex I, 86 (1996).
- 1997**
- [31] M. C. Cantone, D. de Bartolo, A. Giussani, A. Ottolenghi, L.Pirola, Ch. Hansen, P. Roth and E. Werner, *A methodology for biokinetics studies using stable isotopes. Results of repeated Molybdenum investigation on a healthy volunteer* Appl. Radiat. Isot., Exeter, UK 48, 3, 333-338 (1997).
- [32] A. Ottolenghi, M. Merzagora, H.G. Paretzke, *DNA complex lesions induced by protons and alpha particles: track structure characteristics determining LET and particle type dependence.* Radiat. Environ. Biophysics, Berlin, Germany, 36, 97-103 (1997). INCLUDED IN THE EDITORS SELECTION OF HALLMARK PAPERS PUBLISHED IN RADIATION AND ENVIRONMENTAL BIOPHYSICS OVER THE LAST 50 YEARS ( <https://www.springer.com/?SGWID=0-102-2-1414251-preview&dynamic=true> and <http://link.springer.com/article/10.1007/s00411-012-0455-4> )
- [33] A. Ottolenghi, M. Merzagora, *Theoretical and experimental bases for mechanistic models of radiation-induced DNA damage.* In: *Microdosimetry. An Interdisciplinary Approach.* Edited by D. T. Goodhead, P. O'Neill and H. G. Menzel. The Royal Society of Chemistry, Cambridge: RSC, Thomas Graham House), pp 103-110 (1997)

- [34] G. F. Grossi, M. Durante M, Gialanella G, Merzagora M, Monforti F, Pugliese M, Ottolenghi A, *Survival of V79 cells to light ions: an analysis of the model system*. In: *Microdosimetry. An Interdisciplinary Approach*. Edited by D. T. Goodhead, P. O'Neill and H. G. Menzel. The Royal Society of Chemistry, Cambridge: RSC, Thomas Graham House), pp 137-140 (1997).
- [35] A. Ottolenghi, M. Merzagora, F. Monforti. *A Monte Carlo calculation of cell inactivation by light ions*. Int. J. Radiat. Biol. 72, 5, 505-513(1997).
- [36] A. Ottolenghi, M. Merzagora, F. Monforti, B. Candoni, H.G. Paretzke, *Mechanistic and phenomenological models of radiation induced biological damages*, Physica Medica, Pisa, XIII, 282-286 (1997).
- [37] M. Pugliese, M. Durante, G. G. Grossi, F. Monforti, D. Orlando, A. Ottolenghi, P. Scampoli and G. Gialanella *Inactivation of individual mammalian cells by single  $\alpha$ -particles*. Int. J. Radiat. Biol. 72, 4, 397-407 (1997).
- [38] M. Merzagora, W. Friedland, P. Jacob, F. Monforti., A. Ottolenghi and H. G. Paretzke, *Influence of the initial spatial distribution of radical species in irradiated water on their subsequent diffusin, reactions and attack on DNA*. Rad. Res 148, 489-490 (1997).
- [39] A. Ferrari, M. Merzagora and A. Ottolenghi. *Analysis of a slowing down 150 MeV proton beam in water: physical characteristics and effectiveness in inducing DNA cluster damage*. In: GSI-Report-97-09, Edited by G. Kraft and K. Langbein Darmstadt, Germany, pp E4/1-E4/4(1997).
- [40] G. Baroni, G. Ferrigno, A. Pedotti, P. W. Cattaneo, D. Scannicchio, F. Corbella, F. Gerardi, P. Negri, A. Ottolenghi, N. Redaelli, R. Orecchia and G. Tosi. *New Methods for patient alignment* In: *Advanced in Hadrontherapy* Edited by U. Amaldi, B. Larsson and Y. Lemoigne. Excerpta Medica, Amsterdam: Elsevier. pp 278-283 (1997)

#### **1998**

- [41] H.G. Paretzke, P Jacob, W. Heidenreich, W. Friedland, M. Dingfelder, D. Goodhead, P. O'Neill, H.P. Leenhouts, M. Terrisol, C. von Sonntag, A. Ottolenghi, F. Ballarini, M. Merzagora, F. Monforti, A. Edwards, M. Little, J. Stepanek. *Biophysical models for the induction of cancer by radiation*. In: *Radiation Fields, Dosimetry, Biokinetics and Biophysical Models for Cancer Induction by Ionising Radiation (Mid-term reports)* J. Ertel ed., GSF-Bericht 12/98 (ISSN 0721-1694), Neuherberg, , pp 84-129 (1998)

#### **1999**

- [42] M. Merzagora, S. Coyaud, A. Ottolenghi, *Radio conversation between scientiests and the public as a mean for understanding public perseption of radiation risk*. In: Proceedings of the International Symposium on Radiation Education (ISRE98), (December 11-14, 1998, Hayama, Kanagawa) Nihon Genshiryoku Kenkyūjo Ed, Publisher: Japan Atomic Energy Research Institute, 1999
- [43] A. Ottolenghi, F. Ballarini, M. Merzagora, *Modelling radiation induced biological lesions: from initial energy depositions to chromosome aberrations*, Radiat Environ Biophys, 38, 1-13, Berlin, (1999).
- [44] F. Ballarini, M. Merzagora, F. Monforti, M. Durante, G. Gialanella, G.F. Grossi, M. Pugliese, A. Ottolenghi. *Chromosome aberrations induced by light ions: Monte Carlo simulations based on a mechanistic model*, Int J Radiat Biol, London, 75, 35-46 (1999).
- [45] W. Friedland, P. Jacob, H.G. Paretzke, M. Merzagora and A. Ottolenghi. *Simulation of DNA fragment distributions after irradiation with photons*, Radiat Environ Biophys, Berlin, 38, 39-47(1999).
- [46] M. Biaggi, F. Ballarini, W. Burkard, E. Egger, A. Ferrari, A. Ottolenghi *Physical and biophysical characteristics of a fully modulated 72 MeV therapeutic proton beam: model predictions and experimental data*. Nuclear Instr. and Methods - B, Amsterdam, 159, 89-100 (1999).

#### **2000**

- [47] HG Paretzke, F Ballarini, M. Brugmans, M. Dingfelder, A. Edwards, W. Friedland, D. Goodhead, N. Heidenreich, M. Hill, P. Jacob, H.P. Leenhouts, M. Littel, M. Merzagora, F. Monforti, H. Nikjoo, P. O'Neill, A. Ottolenghi, C. von Sonntag, J. Stepanek, M. Terrisol. *Biophysical models for the induction of cancer by radiation*. In: *Radiation fields, dosimetry, biokinetics and biophysical models for cancer induction by ionising radiation 1996-1999, final report* HG Paretzke ed, GSF-Bericht 02/2000 (ISSN 0721-1694), Neuherberg (Germany), pp. 1-62 (2000).
- [48] A. Ottolenghi, F. Ballarini, M. Merzagora, *From tracks to chromosome and cellular damage*. Radiation Research Vol. 2: Proceedings 11th International Congress of Radiation Research, Dublin, Ireland, July 18-23, 1999 pp 130-133 (2000).
- [49] G. Gagliardi, J. Bjhle, I Lax, A. Ottolenghi, F. Eriksson, A Liedberg, P. Lind, L. E. Rutquist, *Radiation Pneumonitis after breast cancer irradiation: analysis of the complication probability using the relative seriality model* Int J Rad Oncol Biol. 46/2, 373-381 (2000).
- [50] F. Ballarini, M. Biaggi M. Merzagora, A. Ottolenghi, M. Dingfelder, W. Friedland, P. Jacob, H. G. Paretzke, *Stochastic aspects and uncertainties in the prechemical and chemical stages of electron tracks in liquid water: a quantitative analysis based on M. C. simulations*. Radiat Environ Biophys, Berlin, 39, 179-188 (2000).

## 2001

- [51] A. Ottolenghi, F. Ballarini, M. Biaggi *Mechanistic and phenomenological models for the estimate of radiation-induced biological damage*. Physica Medica, XVII/S1, 3-12 (2001).
- [52] A. Ottolenghi, F. Ballarini, M. Biaggi, *Mechanistic bases for modelling space radiation risk and planning radiation protection of astronauts*, Physica Medica 17/S1, 274-279 (2001).
- [53] M. Biaggi, F. Ballarini, A. Ferrari, A. Ottolenghi, M. Pelliccioni, *A Monte Carlo code for a direct estimation of radiation risk*, Physica Medica 17/S1, 103-105 (2001).
- [54] A. Ottolenghi, F. Ballarini, M. Biaggi, *Modelling chromosomal aberration induction by ionising radiation: the influence of interphase chromosome architecture*. Adv. in Space Res., 27/2, 369-382 (2001).
- [55] A. Moroni, U. Abbondanno, C. Agodi, R. Alba, F. Ballarini, G. Bellia, M. Biaggi, M. Bruno, G. Casini, S. Cavallaro, R. Cherubini, M. Chiari, N. Colonna, R. Coniglione, M. D'Agostino, A. Del Zoppo, A. Giussani, F. Gramegna, C. Maiolino, G. V. Margagliotti, P.F. Mastinu, E. Migneco, P.M. Milazzo, A. Nannini, A. Ordine, A. Ottolenghi, P. Piattelli, D. Santonocito, P. Sapienza G. Vannini, L. Vannucci, E. Vardaci, *Nuclear detecting systems at LNL and LNS: Foreseen experiments to provide basic data for heavy-ion risk assessment*. Physica Medica 17/S1, 124-127 (2001)
- [56] M. Biaggi, F. Ballarini, W. Burkard, E. Egger, A. Ferrari, A. Ottolenghi, D. Scannicchio *Applications and possible generalisations of a method tested at the OPTIS facility, for analysing physical and radiobiological properties of therapeutic proton beams*. Physica Medica, XVII/S3, 63-67 (2001).
- [57] M. Durante, F. Antonelli, F. Ballarini, M. Belli, D. Bettega, M. Biaggi, P. Calzolari, A. Ferrari, G. Gialanella, A. Giussani, G. Grossi, P. Massariello, A. Ottolenghi, M. Pugliese, P. Scampoli, G. Simone, E. Sorrentino, M. A. Tabocchini, L. Tallone, *Space radiation shielding: biological effects of accelerated iron ions and their modification by aluminum or lucite shields*. Microgravity and Space Station Utilization, 2, 179-181 (2001).

## 2002

- [58] F. Ballarini, M. Biaggi, A. Ottolenghi, O. Sapora, *Cellular communication and bystander effects: a critical review for modelling low-dose radiation action*. Mutation Research, 501, 1-12 (2002).
- [59] F. Ballarini, M. Biaggi, A. Ottolenghi, *Nuclear architecture and radiation-induced chromosome aberrations: models and simulations*. Rad. Prot. Dosimetry, 99, 175-182 (2002).
- [60] R. Cherubini, D.T. Goodhead, H.-G. Menzel and A. Ottolenghi *Editorial - Thirteenth Symposium on Microdosimetry* Radiat. Prot. Dosim. 99, 15-16 (2002)
- [61] F. Ballarini and A. Ottolenghi, *Low dose radiation action: possible implications of bystander effects and adaptive response*, Journal of Radiological Protection, 22, A39-A42 (2002).
- [62] A. Giussani, F. Ballarini, A. Ottolenghi. *Risk at low doses: scientific knowledge, uncertainties and management*. 6<sup>th</sup> European ALARA Network Workshop on "Occupational exposure optimisation in the medical field and radiopharmaceutical industry, Madrid, Spain, October 23-25, 2002, Proceedings, pp. 24-29 (2002).
- [63] A. Ottolenghi, D. Scannicchio, F. Ballarini, M. Biaggi, A. Valota, *From track structure to biological endpoints: models, codes and MC simulations to investigate radiation action and damage formation*. Frascati Physics Series, 29, 9-14 (2002).
- [64] G. Battistoni, A. Ferrari, P. Sala, F. Ballarini, M. Biaggi, A. Ottolenghi, *Development of the FLUKA Monte Carlo code and of its scientific and technological applications*. Frascati Physics Series, 29, 3-8 (2002)
- [65] F. Ballarini, M. Biaggi, A. Ferrari, A. Ottolenghi, M. Pelliccioni, D. Scannicchio, *Modelling the influence of shielding on physical and biological organ doses*, J Radiat Res, S99-S102 (2002).
- [66] F. Ballarini and A. Ottolenghi, *Modelling Radiation-Induced Chromosome Aberrations For Space Risk Assessment* Microgravity and Space Station Utilization 3/2, 33-36 (2002).
- [67] F. Ballarini, M. Merzagora, W. Friedland, P. Jacob, A. Ottolenghi, H.G. Paretzke (2002), *Mechanistic models of radiobiological damage: certainties and uncertainties on the prechemical and chemical stages of electron tracks in liquid water*. In: *Proceedings of the 1st National Workshop on Radiobiology Researches in Italy: Advances and Perspectives, Padua (Italy), November 28-30, 1999*, eds. R. Cherubini, D. Frasca, D. Tirindelli Danesi, LNL-INFN(REP) 190/2002.

## 2003

- [68] F. Ballarini and A. Ottolenghi, *Chromosome aberrations as biomarkers of radiation exposure: modelling basic mechanisms*, Adv. Space Res., 31, 6 1557-1569 (2003).
- [69] A. Valota, F. Ballarini, W. Friedland, P. Jacob, A. Ottolenghi and H.G. Paretzke, *Modelling study of the protective role of OH radical scavengers and DNA higher order structures in induction of single- and double-strand break by gamma-radiation* Int. J. Radiat. Biol., 79, 8, 643-653 (2003).
- [70] F. Gramegna, P.F. Mastinu, L. Vannucci, A. Moroni, A. Bracco, F. Camera, B. Million, O. Wieland, G. Benzoni, S. Leoni, A. Airoldi, R. Sacchi, E. Galbusera, A. Giussani, A. Ottolenghi, F. Ballarini, E. Gadioli, A. Maj, M. Brekiesz, S. Barlini, A. Lanchais, M. Bruno, M. D'Agostino, E. Geraci, G. Vannini, A. Ordine, G. Casini, A. Nannini, M. Chiari, U. Abbondanno, P.M. Milazzo, G.V. Margagliotti, A. Bonasera (2003), *New perspectives for studies of reaction mechanisms at low-medium energies*, Acta Physica Polonica B, 34, 4, 2353-2362 (2003).

- [71] F. Ballarini, M. Biaggi, A. Edwards, A. Ferrari, A. Ottolenghi, M. Pelliccioni, D. Scannicchio, *Estimating mixed field effects: an application supporting the lack of a non-linear component for chromosome aberration induction by neutrons*, Radiat. Prot. Dosimetry, 103, 19-27 (2003)
- [72] F. Gramegna, S. Barlini, A. Lanchais, P.F. Mastinu, L. Vannucci, E. Boscolo Marchi, R. Cherubini, A. Moroni, E. Galbusera, A. Giussani, A. Ottolenghi, E. Gadioli, F. Ballarini, M. Bruno, M. D'Agostino, E. Geraci, G. Vannini, A. Ordine, G. Casini, A. Nannini, M. Chiari. *Cross section measurements relevant for radiotherapy and for the evaluation of the health risk for astronauts*. Annual Report 2002, INFN-Laboratori Nazionali di Legnaro Editors: V. Conte, A. D'Este, D. R. Napoli, A. Palmieri Eds., p. 81-82, [http://www.lnl.infn.it/%7Eannrep/read\\_an/2002/contrib\\_2002/B010b\\_A049T.pdf](http://www.lnl.infn.it/%7Eannrep/read_an/2002/contrib_2002/B010b_A049T.pdf) (2003).
- [73] F. Gramegna, S. Barlini, E. Boscolo Marchi, R. Cherubini, A. Lanchais, P.F. Mastinu, R.A. Ricci, L. Vannucci, A. Moroni, O. Wieland, A. Airoldi, F. Ballarini, G. Benzoni, A. Bracco, F. Camera, E. Gadioli, E. Galbusera, A. Giussani, S. Leoni, B. Million, A. Ottolenghi, R. Sacchi, M. Brekiesz, M. Kmiecik, A. Maj, M. Bruno, M. D'Agostino, E. Geraci, G. Vannini, G. Casini, M. Chiari, A. Nannini, U. Abbondanno, G.V. Margagliotti, P.M. Milazzo, A. Bonasera, S. Cavallaro, A. Ordine. *Heavy ion reaction mechanism studies at low-medium energies with the GARFIELD apparatus*. Proceedings of the XLI International Winter Meeting on Nuclear Physics, 27 January-1 February 2003, Bormio, Italy, Ric. Scient. ed Educ. Perm. S120, Univ. degli Studi Milano, 331-340 (2003).
- [74] A. Fassò, A. Ferrari, S. Roesler, J. Ranft, P.R. Sala, G. Battistoni, M. Campanella, F. Cerutti, L. De Biaggi, E. Gadioli, M.V. Garzelli, F. Ballarini, A. Ottolenghi, D. Scannicchio, M. Carboni, M. Pelliccioni, R. Villari, V. Andersen, A. Empl, K. Lee, L. Pinsky, T.N. Wilson, N. Zapp *The FLUKA code: present applications and future developments*. CHEP-2003-MOMT004, Jun 2003. 8pp. Talk given at 2003 Conference for Computing in High-Energy and Nuclear Physics (CHEP 03), La Jolla, California, March 24 - 28, 2003. Published in eConf C0303241: MOMT004, 2003 <http://www.slac.stanford.edu/econf/C0303241/proc/papers/MOMT004.PDF>. (2003).
- [75] A. Fassò, A. Ferrari, S. Roesler, P.R. Sala, F. Ballarini, A. Ottolenghi, G. Battistoni, F. Cerutti, E. Gadioli, M.V. Garzelli, A. Empl, J. Ranft *The physics models of FLUKA: status and recent developments* CHEP-2003-MOMT005, Jun 2003. 10pp. Talk given at 2003 Conference for Computing in High-Energy and Nuclear Physics (CHEP 03), La Jolla, California, 24-28 Mar 2003. Published in eConf C0303241: MOMT005, 2003 <http://www.slac.stanford.edu/econf/C0303241/proc/papers/MOMT005.PDF> (2003).
- [76] F. Ballarini, F. Cerutti, L. De Biaggi, A. Ferrari, A. Ottolenghi, V. Parini. *Importance of nuclear interactions in hadrontherapy and space radiation protection*, Proceedings of the 10<sup>th</sup> International Conference On Nuclear Reaction Mechanisms, Varenna, June 9 – 13, Ric. Scient. ed Educ. Perm. S122, Univ. degli Studi Milano, 635-643 (2003).
- [77] F. Ballarini, G. Battistoni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, L.S. Pinsky, J. Ranft, S. Roesler, P.R. Sala, D. Scannicchio. *Nuclear models in FLUKA: a review* Proceedings of the 10<sup>th</sup> International Conference On Nuclear Reaction Mechanisms, Varenna, June 9 – 13, Ric. Scient. ed Educ. Perm. S122, Univ. degli Studi Milano, 579-588 (2003).
- 2004**
- [78] V. Andersen, F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, K. Lee, A. Ottolenghi, M. Pelliccioni, L.S. Pinsky, J. Ranft, S. Roesler, P.R. Sala and T.L. Wilson. *Progress towards a FLUKA based simulation tool aimed at the evaluation of space radiation Environments*. In: *Intersections Of Particle And Nuclear Physics: 8th Conference CIPANP2003*, New York, NY, United States, 19-24 May 2003; AIP Conference Proceedings, Volume 698, 349-352 Also in \*New York 2003, Intersections of particle and nuclear physics\* 349-352 doi:[10.1063/1.1664255](https://doi.org/10.1063/1.1664255) (2004)
- [79] F. Ballarini, M. Biaggi, L. De Biaggi, A. Ferrari, A. Ottolenghi, A. Panzarasa, H.G. Paretzke, M. Pelliccioni, P. Sala, D. Scannicchio and M. Zankl, *Role of shielding in modulating the effects of Solar Particle Events: Monte Carlo calculation of physical and "biological" dose in different organs*. Adv. Space Res., 34, 1338-1346, (2004).
- [80] V. Andersen, F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, K. Lee, A. Ottolenghi, M. Pelliccioni, L.S. Pinsky, J. Ranft, S. Roesler, P.R. Sala and T.L. Wilson, *The FLUKA code for space applications: recent developments*. Adv. Space Res. 34, 1302-1310, (2004).
- [81] F. Ballarini, A. Ottolenghi. *Models of chromosome aberration induction: an example based on radiation track structure* Cytogenet Genome Res, 104, 149-156 (2004).
- [82] G. Battistoni, M. Cavinato, F. Cerutti, A. Clivio, E. Fabrici, E. Gadioli, E. Gadioli Erba, M.V. Garzelli, A. Mairani, A. Empl, L.S. Pinsky, F. Ballarini, A. Ottolenghi, A. Fassò, A. Ferrari, J. Ranft, P.R. Sala, *Heavy ion interactions from Coulomb barrier to few GeV/n: Boltzmann Master Equation theory and FLUKA code performances*. Brazilian Journal of Physics, 34, 897-900 (2004).
- [83] A. Ottolenghi and F. Ballarini, *Ionizing radiation effects in biological materials*. In: *Encyclopedia of Condensed Matter Physics*, Edited by F. Bassani, J. Liedl and P. Wyder, Elsevier pp. 28-34 (2005) <http://dx.doi.org/10.1016/B0-12-369401-9/00398-3>

- [84] F. Cerutti, F. Ballarini, G. Battistoni, M. Cavinato, A. Empl, E. Fabrici, A. Fassò, A. Ferrari, E. Gadioli, E. Gadioli Erba, M. V. Garzelli, A. Ottolenghi, V. Parini, L. S. Pinsky, J. Ranft, P. R. Sala, *Towards a comprehensive description of heavy ion reactions*. In: Structure and Dynamics of Elementary Matter, W. Greiner et al eds., Kluwer Academic Publishers, 255-263 (2004).
- [85] F. Gramegna, S. Barlini, V.L. Kravchuk, A. Lanchais, E. Boscolo Marchi, P.F. Mastinu, L. Vannucci, F. Cerutti, E. Gadioli, A. Moroni, M. Murano, M. Cavinato, E. Fabrici, E. Gadioli Erba, A. Giussani, M. Bruno, M. D'Agostino, E. Geraci, G. Casini, M. Chiari, A. Nannini, P. Del Carmine, F. Ballarini, A. Ottolenghi, P.M. Milazzo, A. Ordine, G. Giordano. *Large angle particle emission in  $^{12}\text{C}+^{12}\text{C}$  interaction up to 20 A MeV*. Annual Report 2003, INFN-Laboratori Nazionali di Legnaro Editors: D. R. Napoli, A. D'Este, A. Palmieri, A. Vomiero Eds., p. 53-54 (2004).
- [86] F. Ballarini and A. Ottolenghi. *A model of chromosome aberration induction and CML incidence at low doses*. Radiat and Environ. Biophys. 43, 165-171 (2004).
- [87] F. Ballarini, W. Friedland, P. Jacob, A. Ottolenghi, HG Paretzke, D Scannicchio, A Valota, *Role of DNA organisation and environmental conditions in the evolutions of radiobiological damage: models and simulations*. Radiotherapy and Oncology, 73, S2, 5170-5172 (2004).
- [88] L. Pinsky, V. Anderson, A. Empl, K. Lee, G. Smirnov and N. Zapp, A. Ferrari, K. Tsoulou, S. Roesler and V. Vlachoudis, CERN, Geneva, Switzerland, G. Battistoni, M. Campanella, F. Cerutti, E. Gadioli, M.V. Garzelli, S. Muraro, T. Rancati and P. Sala, F. Ballarini, A. Ottolenghi, V. Parini and D. Scannicchio, M. Carboni and M. Pelliccioni, T. N. Wilson, J. Ranft, Siegen Univ., Germany, A. Fassò USA *Update on the status of the FLUKA Monte Carlo transport code*. In: *Proceedings of CHEP'04 (Computing in High Energy and Nuclear Physics)* Interlaken, Switzerland 27th September - 1st October, 2004. Published in the web. (<http://indico.cern.ch/getFile.py/access?contribId=280&sessionId=4&resId=1&materialId=paper&confId=0>)
- [89] G. Battistoni, F. Cerutti, E. Gadioli, M.V. Garzelli, S. Muraro, T. Rancati, P. Sala, A. Ferrari, K. Tsoulou, S. Roesler, V. Vlachoudis, F. Ballarini, A. Ottolenghi, V. Parini, D. Scannicchio, M. Pelliccioni, A. Empl, L. Pinsky, J. Ranft, A. Fassò *Applications of the FLUKA Monte Carlo code in high energy and accelerator physics*. In: *Proceedings of CHEP'04 (Computing in High Energy and Nuclear Physics)* Interlaken, Switzerland 27th September - 1st October, 2004. pp. 1- Published in the web. (<http://indico.cern.ch/getFile.py/access?contribId=103&sessionId=4&resId=1&materialId=paper&confId=0/>)
- 2005**
- [90] V. Andersen, F. Ballarini, G. Battistoni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, M.V. Garzelli, A. Ottolenghi, H. Paretzke, L. Pinsky, J. Ranft, P. Sala, T. Wilson and M. Zankl. *The Application of FLUKA to Dosimetry and Radiation Therapy*, Radiation Protection Dosimetry 116, 113-117 (2005)
- [91] F. Ballarini and A. Ottolenghi, *A Model of Chromosome Aberration Induction: Applications to Space Research*. Radiation Research, 164/4, 567-570 (2005).
- [92] F. Ballarini, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, V. Parini, M. Pelliccioni, L. Pinsky, P. Sala, D. Scannicchio, *Modeling the action of protons and heavier ions in biological targets: nuclear interactions in hadrontherapy and space radiation protection*. Proc. International Conference on Nuclear Data for Science & Technology - ND2004, Santa Fe, NM, Sept 26-Oct 1, 2004, American Inst. of Physics 2005, pp 1606-1611 (2005).
- [93] F. Cerutti, A. Clivio, E. Gadioli, M. Murano, F. Ballarini, G. Battistoni, A. Ferrari, A. Ottolenghi, J. Ranft, P. Sala, *New results in comprehensive calculations of heavy ion interactions*. Proc. International Conference on Nuclear Data for Science & Technology - ND2004, Santa Fe, NM, Sept 26-Oct 1, 2004, American Inst. of Physics 2005, pp. 1176-1179 (2005).
- [94] F. Ballarini, G. Battistoni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, L. Pinsky, J. Ranft, S. Roesler, P. Sala, G. Smirnov, *Nuclear models in FLUKA: present capabilities, open problems and future improvements*. Proc. International Conference on Nuclear Data for Science & Technology - ND2004, Santa Fe, NM, Sept 26-Oct 1, 2004, American Inst. of Physics 2005, pp 1197-1202 (2005).
- [95] L.S. Pinsky, V. Andersen, A. Empl, K. Lee, G. Smirnov, N. Zapp, A. Ferrari, S. Roesler, V. Vlachoudis, G. Battistoni, M. Campanella, F. Cerutti, E. Gadioli, M.V. Garzelli, S. Muraro, T. Rancati, P. Sala, F. Ballarini, A. Ottolenghi, D. Scannicchio, M. Carboni, M. Pelliccioni, T. Wilson, J. Ranft, A. Fassò, *Event generators for simulating heavy ion interactions to evaluate the radiation risks in spaceflight*. Aerospace, IEEE Conference, DOI: 10.1109/AERO.2005.1559365 5-12 March 2005 pp. 731 – 736 (2005).
- [96] H. Aiginger, V. Andersen, F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, A. Empl, W. Enghardt, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, K. Lee, A. Ottolenghi, K. Parodi, M. Pelliccioni, L. Pinsky, J. Ranft, S. Roesler, R. Sala, D. Scannicchio, G. Smirnov, F. Sommerer, T. Wilson, N. Zapp, *The FLUKA code: new developments and application to 1 GeV/n Iron beams*. Adv. Space Research, 35, 214-222 (2005).

- [97] A. Campa, F. Ballarini, M. Belli, R. Cherubini, V. Dini, G. Esposito, W. Friedland, S. Gerardi, S. Molinelli, A. Ottolenghi, H. Paretzke, G. Simone, M. A. Tabocchini. *DNA DSB induced in human cells by charged particles and gamma rays: experimental results and theoretical approaches*. Int. J. Radiat. Biol. 81, 841-854 (2005).
- [98] T. Wilson, N Zapp, L Pinsky, A Empl, A Fassò, A Ferrari, S Roesler, V Vlachoudis, G Battistoni, M Campanella, F Cerutti, E Gadioli, MV Garzelli, S Muraro, T Rancati, P Sala, F Ballarini, A Ottolenghi, D Scannicchio, M Carboni, M Pelliccioni, J Ranft (2005), *Application of the FLUKA Monte-Carlo transport code to lunar and planetary exploration*, Proc. of the Space Nuclear Conf. 2005, San Diego, California (June 5-9 2005), S. Anghaie ed., pp 553-562, American Nuclear Society 2005.
- [99] F. Cerutti, F. Ballarini, G. Battistoni, P. Colleoni, A. Ferrari, S.V. Fortsch, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, P.R. Sala. *Intermediate mass fragment production in light ion reaction*. In: Nuclear Theory S. Dimitrova ed., Heron Press, Sofia, 2005, ISBN: 9545801875 / 9789545801877 / 954-580-187-5 pp. 50-64 (2005).

## **2006**

- [100] F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, H.G. Paretzke, V. Parini, M. Pelliccioni, L. Pinsky, P. R. Sala, D. Scannicchio, S. Trovati, M. Zankl *GCR and SPE organ doses in deep space with different shielding: Monte Carlo simulations based on the FLUKA code coupled to anthropomorphic phantoms*. Adv. Space Res. 37(9), 1791-1797 (2006).
- [101] F. Ballarini, D. Alloni, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, M. V. Garzelli, M. Liotta, A. Mairani, A. Ottolenghi, H. G. Paretzke, V. Parini, M. Pelliccioni, L. Pinsky, P. Sala, D. Scannicchio, S. Trovati and M. Zankl, *Modelling human exposure to space radiation with different shielding: the FLUKA code coupled with anthropomorphic phantoms*. J. of Phys. Conf. Series 41, 135-142 (2006).
- [102] F. Cerutti, F. Ballarini, G. Battistoni, P. Colleoni, A. Ferrari, S. Fortsch, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, A. Pepe, L.S. Pinsky, P.R. Sala, D. Scannicchio and G.F. Steyn, *Carbon induced reactions at low incident energies*. J. of Phys. Conf. Series 41, 212-218 (2006).
- [103] M.V. Garzelli, F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, A. Ottolenghi, L.S. Pinsky, P.R. Sala, J. Ranft, *Heavy-ion collisions: preliminary results of a new QMD model coupled with FLUKA*. J. of Phys. Conf. Series 41, 519-522 (2006).
- [104] F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, M. Lantz, M. Liotta, A. Mairani, A. Mostacci, S. Muraro, A. Ottolenghi, M. Pelliccioni, L.S. Pinsky, J. Ranft, S. Roesler, P.R. Sala, D. Scannicchio, S. Trovati, R. Villari, T. Wilson, N. Zapp, V. Vlachoudis (2006), *The FLUKA code: an overview*. J. of Phys. Conf. Series 41, 151-160 (2006).
- [105] F. Ballarini, D. Alloni, A. Facchetti, A. Mairani, R. Nano and A. Ottolenghi. *Modelling radiation-induced bystander effect and cellular communication*. Radiat Prot Dosimetry 122: 244-251. (2006).
- [106] S. Trovati , F. Ballarini , G. Battistoni , F. Cerutti , A. Fassò , A. Ferrari , E. Gadioli , M. V. Garzelli , A. Mairani , A. Ottolenghi , H. G. Paretzke , V. Parini , M. Pelliccioni , L. Pinsky , P. R. Sala , D. Scannicchio and M. Zankl. *Human exposure to space radiation: role of primary and secondary particles* Radiat Prot Dosimetry 122: 362-366 (2006).
- [107] D. Alloni , F. Ballarini , W. Friedland , M. Liotta , S. Molinelli , A. Ottolenghi , H. G. Paretzke and M. Rossetti. *Role of DNA/chromatin organisation and scavenging capacity in USX- and proton- induced DNA damage*. Radiat Prot Dosimetry 122: 141-146. (2006).
- [108] A. Facchetti , F. Ballarini , R. Cherubini , S. Gerardi , R. Nano , A. Ottolenghi , K. M. Prise , K. R. Trott , and C. Zilio. *Gamma ray-induced bystander effect in tumour glioblastoma cells: a specific study on cell survival, cytokine release and cytokine receptors*. Radiat Prot Dosimetry 122: 271-274. (2006).
- [109] W. Friedland , P. Jacob , H. G. Paretzke , A. Ottolenghi , F. Ballarini and M. Liotta. *Simulation of light ion induced DNA damage patterns*. Radiat Prot Dosimetry 122: 116-120. (2006).
- [110] A. Ferrari, M.Lorenzo-Sentis, S. Roesler, G. Smirnov, F.Sommerer, C.Theis and V.Vlachoudis, M. Carboni, A. Mostacci, M. Pelliccioni and R. Villari, V. Anderson, N. Elkhayari, A. Empl, K. Lee, B. Mayes, L. Pinsky, N. Zapp, K. Parodi, H. Paganetti and T. Bortfeld, G. Battistoni, M. Campanella, F. Cerutti, P. Colleoni, E. Gadioli, M.V. Garzelli, M. Lanza, S.Muraro, A. Pepe, P. Sala, T. N. Wilson, D. Alloni, F. Ballarini, M. Liotta, A. Mairani, A. Ottolenghi, D. Scannicchio, S. Trovati, J. Ranft, A. Fassò, *Update on the status of the FLUKA Monte Carlo transport code*. Proceedings of the CHEP 2006 conference, Mumbai, India, Feb 13-17, 2006, <http://indico.cern.ch/getFile.py/access?contribId=420&sessionId=3&resId=0&materialId=paper&confId=048>. (2006).
- [111] L.S. Pinsky, V. Andersen, N. Elkhayari, A. Empl, M. Lebourgeois, K. Lee, B. Mayes, G. Smirnov, N. Zapp, A. Ferrari, S. Roesler, V. Vlachoudis, G. Battistoni, M. Campanella, F. Cerutti, E. Gadioli, M.V. Garzelli, S. Muraro, T. Rancati, P. Sala, F. Ballarini, A. Ottolenghi, D. Scannicchio, M. Carboni, M. Pelliccioni, T. Wilson; J. Ranft, A. Fassò, *FLUKA status and preliminary results from the July-2005 AGS run Aerospace Conference, 2006 IEEE, 4-11 March 2006 Page(s):7 pp. DOI: 10.1109/AERO.2006.1655763* (2006).

- [112] F. Ballarini, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, L.S. Pinsky, P.R. Sala, S. Trovati. *Physics to understand biology: Monte Carlo approaches to investigate space radiation doses and their effects on DNA and chromosomes*. Proc of the 11<sup>th</sup> International conference on nuclear reaction mechanisms, Varenna, Italy, June 12-16, 2006, edited by E. Gadioli in "Ricerca Scientifica ed Educazione Permanente" suppl. 126, pp. 591-600 (2006).
- [113] M.V. Garzelli, F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, A. Ottolenghi, L.S. Pinsky, J. Ranft, P.R. Sala, *Heavy-ion collisions described by a new QMD code interfaced to FLUKA: model validation by comparisons with experimental data concerning neutron and charged fragment production*. Proceedings of the "11th International Conference on Nuclear Reaction mechanisms", June 12 - 16 2006, Varenna, Italy, Ricerca scientifica ed educazione Permanente Suppl. 126, Univ. Milano E. Gadioli ed., 515 – 524 (2006).
- [114] L. Mantovani, L D'Ercole, F Lisciandro, P Quaretti, A Azzaretti, Giuseppe Rodolico, C Massa Saluzzo, A Spinazzola, F Di Maria, A Ottolenghi, F Zappoli Thyron and L Andreucci. *Radiochromic Films for Improved Evaluation of Patient Dose in Liver Interventions*, J Vasc Interv Radiol 2006; 17:855–862 (2006).
- [115] M.V. Garzelli, P.R. Sala, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, F. Ballarini, A. Ottolenghi, A. Fasso`, L.S. Pinsky and J. Ranft, *A QMD description of the interaction of Ion Beams with Matter*, Proceedings of the 25th Workshop on Nuclear Theory, June 26 - July 1 2006, Rila mountains, Bulgaria, S. Dimitrova ed., Heron Press (2006), Sofia, 123 – 131 (2006).
- [116] R. Cherubini, F.A. Cucinotta, S. Gerardi, H.G. Menzel , P. O'Neill, A. Ottolenghi. *Fourteenth International Symposium on Microdosimetry*. Radiat Prot Dosimetry 122: 1-2. (2006).
- 2007**
- [117] F. Cerutti, F. Ballarini, G. Battistoni, P. Colleoni, A. Ferrari, S.V. Fortsch, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, A. Pepe, L.S. Pinsky, P.R. Sala, G.F. Steyn, *Low energy light ion interactions*. AIP CP 884, 219-224 doi:10.1063/1.2710583 (2007).
- [118] D. Alloni, F. Ballarini, M. Belli, A. Campa, G. Esposito, W. Friedland, M. Liotta, A. Ottolenghi and H.G. Paretzke *Modeling of DNA fragmentation induced in human fibroblasts by <sup>56</sup>Fe ions*. Adv. Space Res., 40, 1401–1407 (2007).
- [119] F. Ballarini, D. Alloni, A. Facchetti, A. Mairani, R. Nano, A. Ottolenghi, *Radiation risk estimation: modelling approaches for "targeted" and "non-targeted" effects*. Adv. Space Res., 40, 1392–1400 (2007).
- [120] F. Ballarini, G. Battistoni, M. Brugger, M. Campanella, M. Carboni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, M. Lantz, A. Mairani, A. Mostacci, S. Muraro, A. Ottolenghi, V. Patera, M. Pelliccioni, L. Pinsky, J. Ranft, S. Roesler, P.R. Sala, D. Scannicchio, G. Smirnov, F. Sommerer, S. Trovati, R. Villari, V. Vlachoudis, T. Wilson and N. Zapp. *The physics of the FLUKA code: recent developments*. Adv. in Space Res., 40 1339–1349 (2007).
- [121] M.V. Garzelli, P.R. Sala, F. Ballarini, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, A. Ottolenghi, L.S. Pinsky, J. Ranft, *A Monte Carlo approach to study neutron and fragment emission in heavy-ion reactions*. Adv. Space Res., 40, 1350–1356 (2007).
- 2008**
- [122] W. Friedland, H. G. Paretzke, F. Ballarini, A. Ottolenghi, G. Kreth, C. Cremer. *First steps towards systems radiation biology studies concerned with DNA and chromosome structure within living cells*. 47:49–61 Radiat Environ Biophys (2008).
- [123] M. Belli, A. Campa, G. Simone, M.A. Tabocchini, F. Ballarini, A. Facchetti, A. Ottolenghi, *Radiobiological basis of hadrontherapy*, Rivista Medica, 14, 31-42 (2008).
- [124] F. Ballarini, D. Alloni, A. Facchetti, A. Ottolenghi, *Heavy-ion effects: from track structure to DNA and chromosome damage*. New Journal of Physics, 10, 075008, online at <http://www.njp.org> (2008)
- [125] F. Ballarini , M.V. Garzelli, G. Givone, A. Mairani, A. Ottolenghi, D. Scannicchio , S. Trovati, A. Zanini, *Modelling the radiation action for the estimation of biological effects in humans*. In: *Nuclear Data for Science and Technology* , EPD Sciences, pp. 1337-1341.(2008)
- [126] D. Alloni, F. Antonelli, F. Ballarini, M. Belli, A. Bertolotti, A. Campa, V. Dini, L. D'Ercole, G. Esposito, A. Facchetti, W. Friedland, C. Giovannini, S. Grande, L. Guidoni, M. Liotta, F. Lisciandro, A. M. Luciani, L. Mantovani, L. Mariotti, S. Molinelli, R. Nano, A. Ottolenghi, A. Palma, H.G. Paretzke, F. Pasi, A. Rosi, O. Saporà, D. Scannicchio, G. Simone, E. Sorrentino, M.A. Tabocchini, V. Viti. *Charged particle effects: experimental and theoretical studies on the mechanisms underlying the induction of molecular and cellular damage and the modulation of intercellular signalling*. Il Nuovo Cimento C 31, 21-38 (2008).
- [127] A. Ottolenghi, A. Facchetti, K. Trott, V. Smyth. *Modelling the risk of health effects from the use of radiation therapy* TUMORI 7, 2, S15-16 (2008)
- [128] A. Facchetti, R. Nano, A. Ottolenghi, *The response of the central nervous system to ionizing radiation: a challenge for radiobiology* Anticancer Res, 28 (5): 3276-77 (2008)



[129] E. Ranza, A. Bertolotti, A. Facoetti, F. Pasi, A. Ottolenghi, R. Nano *Effect of imatinib Mesylate (STI571) in combination with gamma irradiation on astrocytoma cell survival*. Anticancer Research, 28 (5C): 3417 (2008).

[130] Pasi F, Bertolotti A, Facoetti A, Mariotti L, Ottolenghi A, Nano R. *Study of cytokines bystander signalling in human glioblastoma cells after exposure to gamma radiation*. Anticancer Research, Vol 28 (5C): 3439 (2008).

#### **2009**

[131] A. Campa, D. Alloni, F. Antonelli, F. Ballarini, M. Belli, V. Dini, G. Esposito, A. Facoetti, W. Friedland, Y. Furusawa, M. Liotta, Ottolenghi A., H. G. Paretzke, G. Simone, E. Sorrentino, M. A. Tabocchini *DNA fragmentation induced in human fibroblasts by 56Fe ions: experimental data and MC simulations*. Radiation Research, 171; 438-445 (2009).

[132] P. Legrain, J. Repussard, S. Saloma, W. Weiss, M. Belli, H. Walker, GN Kelly, MJ Atkinson, E. Cardis, R. Cox, AT Elliott, J Hall, M. Harms-Ringdahl, J-R Jourdain, A. Ottolenghi, D. Goodhead (**HLEG**), *High Level and Expert Group Report – European Low Dose Risk Research Radiation Protection, EUR 23884* European Commission, European Research Research Area, ISBN 978-92-79-11736-7, DOI 10.2777/60680 (2009)

[133] E. Ranza, A. Bertolotti, A. Facoetti, L. Mariotti, F. Pasi, A. Ottolenghi, R. Nano *Influence of Imatinib Mesylate on Radiosensitivity of Astrocytoma Cells* Anticancer Research 29(11):4575-8 (2009).

[134] F. Ballarini, A. Facoetti, L. Mariotti, R. Nano, A. Ottolenghi. *Cellular communication and "non-targeted effects": modelling approaches*. Advances in Space Research 44 (2009) 917–925 (2009)

[135] A Facoetti, L Mariotti, F Ballarini, A Bertolotti, R Nano, F Pasi, E Ranza & A Ottolenghi *Experimental and theoretical analysis of cytokine release for the study of radiation-induced bystander effect* Int. J. Radiat. Biol., 85, 8, August 2009, 690–699 (2009)

[136] A. Ottolenghi, A Facoetti, K. R.. Trott, V. Smyth. *Radiobiological effects of integral dose and risk estimation after radiotherapy with external beams* Proceedings of the VI national congress of Medical Physics. Vol. 2 p 1320-1323 (2009).

#### **2010**

[137] M. Belli, A. Ottolenghi, W. Weiss. [The European strategy on low dose risk research and the role of radiation quality according to the Recommendations of the "ad hoc" High Level and Expert Group \(HLEG\)](#). Radiat. Environ. Biophysics, 49:463–468 (2010) DOI 10.1007/s00411-010-0284-2

[138] L. Mariotti, A. Facoetti, D. Alloni, A. Bertolotti, E. Ranza, A. Ottolenghi [Effects of ionizing radiation on cell-to-cell communication](#). Radiation Research 174: 280-289 (2010).

[139] D. Alloni, A. Campa, M. Belli, G. Esposito, A. Facoetti, W. Friedland, M. Liotta, L. Mariotti, H.G. Paretzke and A. Ottolenghi [A Monte Carlo study of radiation quality dependence of DNA fragmentation spectra](#). Radiation Research, 173(3):263-271 (2010).

[140] S Salomaa, W. Weiss, J. Repussard, G. Bloch, F. Hardeman, V. Macellari, J. Harisson, M. Harms-Ringdah, P. Vaz, F. Zolzer, A. Jouve, D. Averbeck, A. Ottolenghi, L. Sabatier, M. Atkinson, S. Bouffler, P. Gourmelon, J-R Jourdain, G. Simone, S. Baatout, T. Jung, E. Cardis, J. Hall. [European Low Dose Risk Research Strategy](#). Proceedings of Third European IRPA Congress 2010, Helsinki, Finland, p 1-7

[141] Pasi F, Bertolotti A, Elena R, Facoetti A, Ottolenghi A, Mazzini G, Nano R, *Modulation of cytokines and their receptors in human glioblastoma cells after ionizing radiation* Cytometry Part A, Volume 77A Issue 2 Anno 2010 161-162

[142] Bertolotti A, Ranza E, Mariotti L, Pasi F, Facoetti A, Nano R, Mazzini G, Ottolenghi A. *Mechanism of radiation effects at cellular level: bystander effects and modulation of the cytokine signalling*. Cytometry. Part A, vol. 77A; p. 155-156, ISSN: 1552-4922 (2010).

[143] A. Ottolenghi [ALLEGRO Early and Late Risks to Normal/Healthy Tissues from the Use of Existing and Emerging Techniques for Radiation Therapy Side-effects of radiation therapy](#). In: Euratom FP7 Research & Training Projects Vol. 2 EUROPEAN COMMISSION Directorate-General for Research Directorate J – Energy (Euratom) Unit J.2 – Fission, EUR 24319 EN p 32-33 (2010)

#### **2011**

[144] Ottolenghi A, Smyth V, Trott KR, on behalf of the ALLEGRO consortium [The risks to healthy tissues from the use of existing and emerging techniques for radiation therapy](#). Vol. 143, No. 2–4, pp. 533–535 (2011)

[145] A. Ottolenghi. [ALLEGRO - Early and late health risks to normal/healthy tissues from the use of existing and emerging techniques for radiation therapy](#). In: European Research on Environment and Health Funded by the Seventh Framework Programme Volume 1 – project information EUR 24641 EN p. 166-169 (2011)

[146] M. Belli, S. Salomaa and A. Ottolenghi. [MELODI – The "Multidisciplinary European LOW Dose Initiative"](#) Vol. 143, No. 2–4, pp. 330–334 (2011)

[147] L Mariotti, A Facoetti, A Bertolotti, E Ranza, D Alloni, A Ottolenghi. [Radiation induced perturbation of cell-to-cell signaling and communication](#). Radiation Protection Dosimetry, Vol. 143, No. 2–4, pp. 294 – 300 (2011)

- [148] D. Alloni, A. Campa, M. Belli, G. Esposito, L. Mariotti, M. Liotta, W. Friedland, H. Paretzke and A. Ottolenghi, [Monte Carlo evaluation of DNA fragmentation spectra induced by different radiation qualities](#) Radiation Protection Dosimetry, Vol. 143, No. 2–4, pp. 226–231 (2011)
- [149] A. Ottolenghi, K. Trott, V. Smyth *Normal tissue risk from radiotherapy* [The ALLEGRO Session at the ESTRO Anniversary conference](#), Quarterly Newsletter, ESTRO Summer 2011 # 80, 1-2 (2011)
- [150] L. Mariotti, A. Ottolenghi *Radiation-perturbed signalling and systems radiation biology*, [THREE, The Health Risk of Extraterrestrial Environments](#), November 2011, 1-5, <http://three.usra.edu/articles/MariottiSystemsBiology.pdf>

## 2012

- [151] D. Alloni, A. Campa, W. Friedland, L. Mariotti and A. Ottolenghi, [Track structure, radiation quality and initial radiobiological events: Considerations based on the PARTRAC code experience](#). The International Journal of Radiation Biology Vol. 88, No. 1-2: 77–86 (2012).
- [152] F. Ballarini, A. Ottolenghi, [Chromosome Aberrations by Heavy Ions..](#) In: *Radiation Damage in Biomolecular Systems, Biological and Medical Physics, Biomedical Engineering..* G G Gómez-Tejedor and M C Fuss eds., Springer Part 3, 371-384, DOI: 10.1007/978-94-007-2564-5\_22 (2012).
- [153] K Trott, W Doerr , A Facchetti, J Hopewell, J Langendijk, P van Luijk, A Ottolenghi and V Smyth [Biological mechanisms of normal tissue damage: importance for the design of NTCP models..](#) Radiotherapy and Oncology Radiotherapy and Oncology 105 79–85 (2012)
- [154] L. Mariotti, A. Bertolotti, E. Ranza, G. Babini A. Ottolenghi. [Investigation of the mechanisms underpinning IL-6 cytokine release in bystander phenomena: the roles of radiation dose, radiation quality and specific ROS/RNS scavengers..](#) Int J Radiat Biol. Oct; 88(10):751-62 (2012).
- [155] R. Orecchia, B. A. Jereczek-Fossa, Elena Rondi, I. Bossi-Zanetti, I. Meaglia, R. Luraschi, M. C. Leonardi, N. Rotmensz, E. Botteri, C. Fodor, A. Cecconi, A. Morra, R. Lazzari, A. Ferrari, F. Cattani, V. Galimberti, A. Luini, P. Veronesi, S. Zurrada, S. Magrini, W. Doerr, N. Humble, K. R. Trott, A. Ottolenghi, V Smyth, U. Veronesi [Second malignancies following breast cancer treatment: a case-control study based on the PERIDOSE methodology](#). TUMORI Tumori. Nov; 98(6):715-21. doi: 10.1700/1217.13494 (2012).
- [156] A. Ottolenghi *ANDANTE Multidisciplinary evaluation of the cancer risk from neutrons relative to photons using stem cells and the induction of second malignant neoplasms following paediatric radiation therapy - Better appraising the risk from exposure to low doses of neutron radiation* In: EURATOM FP7 Research and Training Projects, EUROPEAN COMMISSION, ISBN 978-92-79-20029-8 ISSN 1018-5593 doi:10.2777/65063 Vol. 3 p. 86-87 [http://ec.europa.eu/research/energy/euratom/publications/pdf/euratom\\_fp7\\_research\\_&\\_training\\_projects\\_volume\\_3.pdf](http://ec.europa.eu/research/energy/euratom/publications/pdf/euratom_fp7_research_&_training_projects_volume_3.pdf) (2012)

## 2013

- [157] A. Ottolenghi, V. Smyth, K. Trott. [Assessment of cancer risk from neutron exposure – the ANDANTE project](#). 57, 68-73 (2013).
- [158] D. Alloni, A. Campa, W. Friedland, L. Mariotti and A. Ottolenghi. [Integration of Monte Carlo simulations with PFGE experimental data on DNA double strand breaks induced by nitrogen ions shows a RBE compatible to  \$\gamma\$ -H2AX results](#) Radiat Res. Jun;179(6): 690-7. doi: 10.1667/R3043.1 (2013).
- [159] L. Mariotti, G. Pirovano, K.I. Savage, M. Ghita, A. Ottolenghi, K.M. Prise, G. Schettino, [Use of the  \$\gamma\$ -H2AX Assay to Investigate DNA Repair Dynamics Following Multiple Radiation Exposures](#). PLoS ONE 8 (11): e79541. doi:10.1371/journal.pone.0079541 (2013).
- [160] A. Ottolenghi, K-R. Trott, V.G.Smyth *Support and integration of education and training on low dose radiation research in Europe* ETRAP 2013 Transactions pp. 296-302 <http://www.euronuclear.org/events/etrap/etrap2013/transactions/ETRAP2013-transactions.pdf> (2013).
- [161] A. Ottolenghi, K-R. Trott, V.G.Smyth *The ANDANTE Project: Progress after one year: meeting at ESTRO office*. ESTRO Newsletter May-June 2013, 161 [http://www.estro.org/binaries/content/assets/estro/about/newsletter/estro-newsletter-may-june\\_printer-friendly.pdf](http://www.estro.org/binaries/content/assets/estro/about/newsletter/estro-newsletter-may-june_printer-friendly.pdf) (2013).

## 2014

- [162] D. Alloni, C. Cutaia, L. Mariotti, W. Friedland, A. Ottolenghi. [Modelling dose deposition and DNA damage due to low energy  \$\beta\$ - emitters](#). Radiation Research, 182, 322–330 (2014)
- [163] D. Alloni, L. Mariotti and A. Ottolenghi. [Early Events Leading to Radiation-Induced Biological Effects](#). In: Brahme A. (Editor in Chief.) *Comprehensive Biomedical Physics*, vol. 7, pp. 1-22. Amsterdam: Elsevier (2014). <http://www.sciencedirect.com/science/article/pii/B9780444536327008017>
- [164] M. Ugolini, A. Ottolenghi, G. Babini, G. Baiocco, L. Mariotti and J. Morini [Perturbation of cellular signaling cascades modulated by ionizing radiation and environmental stress](#) IL NUOVO CIMENTO Vol. 37 C, N. 4 pp 167-173 (2014).

## 2015

- [165] S. Salomaa, D. Averbeck, A. Ottolenghi, L. Sabatier, S. Bouffler, M. Atkinson, J-R Jourdain, [European Low Dose Risk Research Strategy – Future of research on biological effects at low doses](#). Radiation Protection Dosimetry Vol. 164, No. 1–2, pp. 38–41 (2015).
- [166] G Babini, J Morini, G Baiocco, L Mariotti, A Ottolenghi [In vitro  \$\gamma\$ -ray-induced inflammatory response is dominated by culturing conditions rather than radiation exposures](#). Scientific Reports 5, Art. no.: 9343 doi:10.1038/srep09343, pp 1-7 (2015).  
<http://www.nature.com/srep/2015/150320/srep09343/pdf/srep09343.pdf>
- [167] E. Schmitt, W. Friedland, M. Dingfelder, A. Ottolenghi [Cross-section scaling for track structure simulations of low-energy ions in liquid water](#). Radiation Protection Dosimetry vol. 166, p. 15-18 (2015).
- [168] D. Alloni, G. Baiocco, G. Babini, W. Friedland, P. Kundrat, L. Mariotti, A. Ottolenghi, [Energy dependence of the complexity of DNA damage induced by carbon ions](#). Radiation Protection Dosimetry vol. 166, p. 86-90 (2015).
- [169] G. Baiocco, D. Alloni, G. Babini, L. Mariotti, A. Ottolenghi [Reaction mechanism interplay in determining the biological effectiveness of neutrons as a function of energy](#) Radiation Protection Dosimetry vol. 166, p. 316-319 (2015).
- [170] A. Ottolenghi, G. Baiocco, V. Smyth, K. Trott [The ANDANTE project: a multidisciplinary approach to neutron RBE](#). Radiation Protection Dosimetry vol. 166, p. 311-315 (2015).
- [171] L. Mariotti, A. Abdelrazzak, A. Ottolenghi, P. O'Neill, M. Hill [Stimulation of intercellular induction of apoptosis in transformed cells at very low doses: spatial and temporal features](#). Radiation Protection Dosimetry vol. 166, p. 161-164 (2015).
- [172] D. Alloni, M. Prata, A. Salvini, A. Ottolenghi [Neutron flux characterization of the Pavia TRIGA Mark II reactor for radiobiological and microdosimetric applications](#) Radiation Protection Dosimetry vol. 166, p. 261-265 (2015).
- [173] J. Morini, G. Babini, M. Ferrari, C. Maccario, L. Mariotti, A. Minelli, M. Savio, A. Guertler, U. Kulka, U. Roessler, A. Ottolenghi, C. Danesino [Radiosensitivity in lymphoblastoid cell lines derived from shwachman-diamond syndrome patients](#) Radiation Protection Dosimetry vol. 166, p. 95-100 (2015).
- [174] G. Babini, V. Bellinzona, J. Morini, L. Mariotti, K. Unger, A. Ottolenghi [Mechanisms of the induction of apoptosis mediated by radiation-induced cytokine release](#). Radiation Protection Dosimetry vol. 166, p. 165-169 (2015).
- [175] G. Babini, M. Ugolini, J. Morini, G. Baiocco, L. Mariotti, P. Tabarelli de Fatis, M. Liotta, A. Ottolenghi [Investigation of radiation-induced multilayered signalling response of the inflammatory pathway](#). Radiation Protection Dosimetry vol. 166, p. 157-160 (2015).

## 2016

- [176] J. W. Norbury, W. Schimmerling, T. C. Slaba, E. I. Azzam, F. F. Badavi, G. Baiocco, E. Benton, V. Bindi, E. A. Blakely, S. R. Blattnig, D. A. Boothman, T. B. Borak, R. A. Britten, S. Curtis, M. Dingfelder, M. Durante, W. S. Dynan, A. J. Eisch, S. R. Elgart, D. T. Goodhead, P. M. Guida, L. H. Heilbronn, C. E. Hellweg, J. L. Huff, A. Kronenberg, C. La Tessa, D. I. Lowenstein, J. Miller, T. Morita, L. Narici, G. A. Nelson, R. B. Norman, A. Ottolenghi, Z. S. Patel, G. Reitz, A. Rusek, A.-S. Schreurs, L. A. Scott-Carnell, E. Semones, J. W. Shay, V. A. Shurshakov, L. Sihver, L. C. Simonsen, M. D. Story, M. S. Turker, Y. Uchihori, J. Williams, C. J. Zeitlin. [Galactic cosmic ray simulation at the NASA Space Radiation Laboratory](#). Sciences in Space Research 8, 38–51 (2016)
- [177] M. Hauptmann, S. Haghdoost, M. Gomolka, H. Sarioglu, M. Ueffing, A. Dietz, U. Kulka, K. Unger, G. Babini, M. Harms-Ringdahl, A. Ottolenghi, S. Hornhardt. [Differential Response and Priming Dose Effect on the Proteome of Human Fibroblast and Stem Cells Induced by Exposure to Low Doses of Ionizing Radiation](#). Radiation Research, Mar 2016, Vol. 185, No. 3 (March 2016) pp. 299-312 (2016).
- [178] B. Tanno, G. Babini, S. Leonardi, P. Giardullo, I. De Stefano, E. Pasquali, A. Ottolenghi, M. J. Atkinson, A. Saran, M. Mancuso. [Ex vivo miRNome analysis in Ptch1+/- cerebellum granule cells reveals a subset of miRNAs involved in radiation-induced medulloblastoma](#) Oncotarget (2016).
- [179] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, W. Friedland, P. Kundrat, E. Schmitt, M. Puchalska, L. Sihver, A. Ottolenghi. [The origin of neutron biological effectiveness as a function of energy](#). Scientific Reports, 34033 (2016).

## 2017

- [180] J. Morini, G. Babini, S. Barbieri, G. Baiocco, A. Ottolenghi. [The interplay between radio-resistant Caco-2 cells and the immune system increases epithelial layer permeability and alters signaling protein spectrum](#). Frontiers in Immunology, section Cancer Immunology and Immunotherapy March 2017 | Volume 8 | Article 223 (2017) <https://doi.org/10.3389/fimmu.2017.00223>
- [181] W. Friedland, E. Schmitt, P. Kundrat, M. Dingfelder, G. Baiocco, S. Barbieri, A. Ottolenghi. [Comprehensive track-structure based evaluation of DNA damage by light ions from radiotherapy relevant energies down to stopping](#). Scientific Report, 7:45161 | DOI: 10.1038/srep45161 (2017)

- [182] V. Smyth, A. Ottolenghi, A. Wojcik, G. Safrany, M. Coeck, M. Atkinson [Support and integration of education and training for radiation protection research in the European Joint Programme CONCERT](#), ETRAP 2017 Conference Proceedings 30 May 2017 - 2nd June 2017 Valencia, Spain
- [183] A. Berrington de Gonzalez, B. Vikram, J. C. Buchsbaum, F. de Vathaire, W. Dörr, D. Hass-Kogan, J. A. Langendijk, A. Mahajan, W. Newhauser, A. Ottolenghi, C. Ronckers, R. Schulte, L. Walsh, T. I. Yock, R. A. Kleinerman. *A Clarion Call for Large-Scale Collaborative Studies of Pediatric Proton Therapy*. International Journal of Radiation Oncology\*Biophysics\*Physics, Volume 98, Issue 5, 1 August 2017, Pages 980-981 (2017).  
<https://authors.elsevier.com/a/1VM611Hx51wLvf>  
<http://www.sciencedirect.com/science/article/pii/S0360301617307241>
- [184] M. Siragusa, Giorgio Baiocco, M. Frederici, W. Friedland3, T. Groesser, A. Ottolenghi, M. Jensen. [The COOLER code: a novel analytical approach to calculate sub-cellular energy deposition by internal electron emitters](#). Radiation research Aug;188(2):204-220. doi: 10.1667/RR14683.1 (2017)
- [185] M. Vuolo, G. Baiocco, S. Barbieri, L. Bocchini, M. Giraud, T. Gheysens, C. Lobascio, A. Ottolenghi [Exploring innovative radiation shielding approaches in space: a material and design study for a wearable radiation protection spacesuit](#). Life Sciences in Space Research, Vol.15, November 2017, Pages 69-78 (2017).
- [186] G. Baiocco, S. Barbieri, G. Babini, J. Morini, W. Friedland, P. Kundrát, E. Schmitt, M. Puchalska, U. Giesen, R. Nolte, A. Ottolenghi *At the physics-biology interface: the neutron affair*. Radiation Protection Dosimetry, in press (2017)

### **Books (editor)**

- [187] R. Cherubini, D.T. Goodhead, H.-G. Menzel and A. Ottolenghi [Editors MICRODOSIMETRY Proceedings of the 13<sup>th</sup> Symposium on Microdosimetry, Stresa, May 27 June 1 2001](#), Radiat. Prot. Dosim. 99 (2002)
- [188] R. Cherubini, F.A. Cucinotta, S. Gerardi, H.G. Menzel, P. O'Neill, A. Ottolenghi [Editors MICRODOSIMETRY Proceedings of the 14<sup>th</sup> Symposium on Microdosimetry, Venezia, November 13, November 18, 2005](#), Radiat. Prot. Dosim., 122, (2006)

### **National publications in extenso**

- [189] A. Ottolenghi, *Un attacco sull'Italia*, Sapere, p. 27-34, Agosto-settembre 1986.
- [190] A. Ottolenghi, *Quali danni per la salute*, Sapere, numero speciale su Chernobyl, p. 27-28, Dicembre 1986.
- [191] A. Ottolenghi, *Simulazione degli Effetti a Breve Termine di un Attacco Nucleare di Tipo "Counterforce" in Italia* In: AA. VV. *Scienza, Armi e Disarmo, 40 Anni Dopo Hiroshima*, Ed. Dedalo, p. 127-150, Bari (1986).
- [192] A. Ottolenghi, *Simulazione di un conflitto nucleare in Europa*, in AA. VV., *Quale Disarmo. Per una Nuova Politica della Sicurezza*, a cura di M. De Andreis, Franco Angeli, p. 89-134, Milano (1988). Codice ISBN 10: 8820429012 ISBN 13: 9788820429010
- [193] D. Bettega, P. Calzolari, A. Ottolenghi, and L. Tallone Lombardi. *Modelli di interazione della radiazione ionizzante con sistemi cellulari*. Atti del V Convegno Nazionale S.I.R.R. Roma 12-14 ottobre 1989, p. 51-61, Enea Serie Simposi, Roma (1990).
- [194] D. Bettega, P. Calzolari, A. Ottolenghi, e L. Tallone Lombardi. *Carcinogenesi da radiazione: risultati in vitro*. Atti del 28° Congresso AIRB, Napoli 21-23 settembre 1989, p. 137-147 Idelson, Napoli (1993).
- [195] A. Ottolenghi, D. Bettega, P. Calzolari, G. Noris Chiorda, and L. Tallone Lombardi  *$\alpha/\sqrt{\beta}$  come parametro di forma delle curve dose-effetto di sopravvivenza cellulare*. Atti del XX Congresso Nazionale AIRB. Roma 29-30 Settembre 1993, C Biagini e A. Becciolini eds., DRE Enea, Roma, pp 118-127 (1993).
- [196] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Trasformazione neoplastica in popolazioni sincronizzate di cellule C3H10T1/2, esposte a radiazione  $\alpha$* . Atti del XX Congresso Nazionale AIRB. Roma 29-30 Settembre 1993, C Biagini e A. Becciolini eds., DRE Enea, Roma, pp 132-138 (1993).
- [197] A. Ottolenghi. *Hiroshima e Nagasaki*. In: CeSPi e USPID, *Cinquant'anni dopo Hiroshima*. Editore OA, Roma, pp 27-30 (1995).
- [198] G. Longo, A. Ottolenghi. *Funzionamento delle armi nucleari*. In: CeSPi e USPID, *Cinquant'anni dopo Hiroshima*. Editore OA, Roma, pp 135-146 (1995).
- [199] G. Longo, A. Ottolenghi. *L'esplosione nucleare*. In: CeSPi e USPID, *Cinquant'anni dopo Hiroshima*. Editore OA, Roma, pp 147-158 (1995).

- [200] A. Ottolenghi, S. Alborghetti, M. Merzagora, B. Candoni, H. G. Paretzke. *Electron track features determining DNA lesion induction*. Proceedings of the 2nd joint congress SIRR-GIR, G. Spadaro ed., Palermo September 11-14, 1996 pp 417-420 (1996).
- [201] G. Gagliardi, J. Bjhle, I Lax, A. Ottolenghi, F. Eriksson, A Liedberg, P. Lind, L. E. Rutquist, *Polmonite da Radiazione in seguito alla radioterapia del tumore alla mammella: applicazione di un modello NTCP* In AIFM, Atti del I congresso nazionale, Firenze, 25-26 giugno 1999 pp. 109-110.
- [202] A. Ottolenghi, F. Ballarini, M. Biaggi, B. Candoni, A. Ferrari, D. Scannicchio. *Modelli e simulazioni dei meccanismi di danno da radiazioni alle strutture biologiche: integrazione dei risultati nel codice FLUKA per studi di ottimizzazione della terapia con protoni*. Rapporti ISTISAN, ISSN 1 123-3187, Istituto Superiore di Sanità, Roma, 04/40, 137-144 (2004).
- [203] F. Ballarini, W. Friedland, S. Molinelli, A. Ottolenghi, H.G. Paretzke, M. Rossetti, A. Valota, *Modelli meccanicistici di danno al DNA e aberrazioni cromosomiche da radiazioni ionizzanti*. Proc. II Riunione Nazionale della Società Italiana per le Ricerche sulle Radiazioni e I Convegno Nazionale della Federazione Italiana per le Ricerche sulle Radiazioni, Legnaro-Padova, 20-22 Novembre 2003. Radiazioni - Ricerca e applicazioni, periodico della Società Italiana per le Ricerche sulle Radiazioni, suppl. vol. VII/1, 9-11.
- [204] L. D'Ercole, L. Mantovani, A. Ottolenghi, F. Lisciandro, L. Andreucci, P. Quaretti, F. Zappoli Thyron. *Valutazione della dose al paziente in radiologia interventistica*. Atti del IV Congresso Nazionale AIFM (Associazione Italiana di Fisica Medica), Verona 14-17 giugno 2005, p. 449-451 (2005).
- [205] M. Pinto, F. Ballarini, A. Ottolenghi, M. Belli, Effetti biologici delle radiazioni ionizzanti a livello cellulare e multi cellulare. Proc. Convegno AIFM, Lucca, Settembre 2007, 19.9/1-4 (2007).
- [206] A. Ottolenghi, F. Ballarini, M. Belli, A. Facchetti, D. Scannicchio, Problematiche attuali della ricerca in adroterapia. Proc. Convegno AIFM, Lucca, Settembre 2007 20.9/1-4 (2007).
- [207]

### **Contributions to workshops and conferences**

#### **1990**

- [208] D. Bettega, P. Calzolari, V. Locati, A. Ottolenghi and L. Tallone Lombardi. *The effects of 4.3 MeV  $\alpha$ -particles on C3H10T1/2 cells. RBE for survival and transformation*. 23<sup>rd</sup> Annual Meeting of the European Society for Radiation Biology, Dublin, 23-27 september, 1990, p. 83, ESRB, Dublin, 1990.
- [209] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi. *Modelli interpretativi dell'inattivazione e della trasformazione di cellule irraggiate con radiazioni a basso ed alto LET*. LXXVI Congresso Nazionale S.I.F. Trento, 8-13 ottobre 1990. p. 43, SIF, Trento, 1990.

#### **1991**

- [210] D. Bettega, P. Calzolari, A. Ottolenghi and L. Tallone Lombardi. *Transformation of C3H10T1/2 cells exposed to single and fractionated doses of  $\alpha$ -particles*. Radiation Research. A Twentieth-Century Perspective. Vol I: Abstracts of the 9th International Congress of Radiation Research, Toronto (J.D.Chapman, W.C.Dewey,G.F.Whitmore, eds.) p. 346 (1991) Academic Press, Inc..
- [211] A. Ottolenghi, C.K. Hill and L. Tallone Lombardi. *RBEs for transormation of C3H10T1/2 cells exposed to neutrons of various energies*. 7th Symposium on Neutron Dosimetry, Berlin, 14-18 October, 1991. Book of abstracts, part II, DOE, p. 59

#### **1992**

- [212] D. Bettega, P. Calzolari, G.Noris Chiorda, A.Ottolenghi and L. Lombardi. *Oncogenic transformation induced in C3H10T1/2 cells by high LET  $\alpha$ -particles: fractionation effects*. Joint Meeting of the Association for Radiation Research. Netherlands Radiobiology Society/ Swedish Radiobiology Society. St Andrews 1-4 April 1992
- [213] D. Bettega, P. Calzolari, G.Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Effetti biologici indotti da basse dosi di particelle  $\alpha$ : trasformazione e modifica della cinetica cellulare*. VII Congresso Nazionale A.I.F.B. Ancona. Giugno 1992 p. C8.
- [214] L.Tallone, D. Bettega, P. Calzolari, G. Noris Chiorda and A. Ottolenghi. *A study of the transformation frequencies in C3H10T1/2 cells exposed to high LET radiation*. Eleventh Symposium on Microdosimetry 13-18 Sept. 92 Gatlimburg USA p. 101.
- [215] A. Ottolenghi, D. Bettega, P. Calzolari, G. Noris Chiorda and L. Tallone Lombardi. *Un modello interpretativo dell' inverse dose-rate effect-confronto tra previsioni teoriche e risultati sperimentali*. LXXVIII Congresso Nazionale SIF Pavia 5-9 Ottobre 92 p. 61-62
- [216] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Basse dosi di particelle  $\alpha$  da 4.3 MeV: effetti del frazionamento della dose sulla frequenza di trasformazione cellulare* LXXVIII Congresso Nazionale SIF Pavia 5-9 Ottobre 92 p. 62.

- [217] A. Ottolenghi, D. Bettega, P. Calzolari, G. Noris Chiorda and L. Tallone Lombardi. *Studio della frequenza di trasformazione cellulare indotta da radiazione di alto LET*. VI convegno Nazionale SIRR. Capri 19-22 ottobre 1992; p C30.

#### **1993**

- [218] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Neoplastic transformation of C3H10T1/2 cells: cell-cycle dependence for high LET radiation*. 25th Annual Meeting of the European Society for Radiation Biology. June 10-14, 1993, Stockholm, Sweden, P09:27
- [219] M. Durante, G. Gialanella, G.F. Grossi, M. Nappo, M. Pugliese, D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Induction of cromosomal aberrations in mouse 10T1/2 cells by  $\alpha$ -particles: dependence on the cell-cycle stage at the time of irradiation*. 25th Annual Meeting of the European Society for Radiation Biology June 10-14, 1993, Stockholm, Sweden, p.P09:10
- [220] M. Durante, G. Gialanella, G.F. Grossi, M. Nappo, M. Pugliese, D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Aberrazioni cromosomiche radioindotte in cellule di topo: dipendenza dalla fase del ciclo cellulare*. LXXIX Congresso Nazionale SIF. Udine 27 Settembre 1993 p. 191
- [221] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Cell cycle dependence of 10T1/2 cell transformation*. Radiation Research 1993 Guildford, UK, July 12-15. I. J. Radiat. Biol., London, 65, 145 (1993).
- [222] D. Bettega, P. Calzolari, G. Noris Chiorda, A. Ottolenghi and L. Tallone Lombardi. *Cell cycle responses for oncogenic tranformation in C3H10T1/2 cells exposed to  $\alpha$ -particles* Int. Symp. on Molecular Mechanism of Radiation Carcinogen Induced Cell Transformation, Mackinac Isl., Mich., USA, Sept. 19-24, 1993.
- [223] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola, *L'attivazione nucleare con protoni per studi metabolici con traccianti stabili*, Il Convegno Nazionale dell'Associazione Italiana per lo Studio degli Elementi in Traccia negli Organismi Viventi, Roma, 5 novembre 1993.

#### **1994**

- [224] A. Ottolenghi, M. Merzagora, L. Tallone, M. Durante, *Studio del danno al DNA indotto da radiazioni ionizzanti mediante simulazioni Montecarlo*, LXXX Congresso SIF, Lecce, 26 settembre-1 ottobre 1994, p 70.
- [225] A. Ottolenghi, M. Merzagora, L. Tallone, M. Durante, *Monte Carlo simulations of DNA lesions induced by protons and alpha particles*, VIII Congresso Nazionale AIFB, Pisa, 15-18 novembre 1994, Physica Medica, - vol.X, N.4, 189 (1994).
- [226] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola, Ch. Hansen, P. Roth and E. Werner, *Stable tracers for studying molybdenum metabolism in humans*, World Congress in Medical Physics and Biomedical Engineering, Rio de Janeiro, 21-26 agosto 1994 Phys. Med. Biol. Bristol, UK, 39A, 815 (1994).
- [227] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola, Ch. Hansen, P. Roth and E. Werner, *Studi di metabolismo di rutenio con traccianti stabili: prove di fattibilità*, LXXX Congresso SIF, Lecce, 26 settembre-1 ottobre 1994, p. 155.
- [228] M.C. Cantone, D. de Bartolo, G. Gambarini, A. Giussani, A. Ottolenghi, L. Pirola: *A feasibility test for zirconium biokinetics studies with stable tracers*, VIII Congresso Nazionale AIFB, Pisa, 15-18 novembre 1994, Physica Medica, - vol.X, N.4, 155 (1994).
- [229] M.C. Cantone, D. de Bartolo, A. Giussani, A. Ottolenghi, L. Pirola, *Uso di isotopi stabili per la determinazione dei parametri metabolici di interesse per la dosimetria interna*, Congresso SIRR/GIR, Pisa, 24-26 novembre 1994, Libro dei riassunti, G4.
- [230] A. Ottolenghi, M. Merzagora, M. Durante, *Confronto fra RBE per inattivazione, single track lethal damage e qualità dei dsb al variare del LET di protoni e particelle alfa*, Congresso SIRR/GIR, Pisa, 24-26 novembre 1994, Libro dei riassunti, E9.

#### **1995**

- [231] M.C. Cantone, D. de Bartolo, A. Giussani, A. Ottolenghi, L. Garlaschelli, Ch. Hansen, P. Roth and E. Werner, *An application of charged particle activation analysis for studying biokinetics with stable isotopes*. Ninth International Conference on Modern Trends in Activation Analysis Seoul, Korea, 24-30 September 1995 p 151 (1995).
- [232] A. Ottolenghi, M. Merzagora, M. Durante, H. G. Paretzke, W. E. Wilson, *Physical properties of energy deposition clusters determining biological effectiveness of protons and  $\alpha$ -particles* In: Radiation Research 1895-1995, Congress Proceedings 10th ICRR, (U. Hagen, H. Jung, C. Streffer eds.), Wurzburg, Vol. 1, p 112 (1995)

[233] A. Ottolenghi, M. Merzagora, B. Candoni *Uso delle strutture di traccia per la comprensione dei meccanismi di induzione dei danni radiobiologici* (relazione su invito). LXXXI Congresso nazionale SIF, Perugia, 2-7 ottobre 1995 p 150.

#### **1996**

[234] G. Gialanella, M. Durante, G. F. Grossi, M. Merzagora, F. Monforti, M. Pugliese and A. Ottolenghi. *Analisi della validità dei sistemi modello in vitro per lo studio della sopravvivenza delle cellule alle radiazioni direttamente ionizzanti* LXXXII Congresso SIF, Verona, 23-28 settembre 1996, p. 83 (1996)

[235] A. Ottolenghi, A. Ferrari. *Simulazioni di traccia per terapia con protoni: aspetti dosimetrici, radiobiologici e radioterapici*. (Relazione su invito). LXXXII Congresso SIF, Verona, 23-28 settembre 1996, p. 61 (1996)

[236] A. Ottolenghi, M. Merzagora, *Opening lecture of the session DNA damage and radiation quality: experiments versus modelling. 12th Symposium on Microdosimetry*, Oxford, U.K., 29 September - 4 October 1996.

[237] A. Ottolenghi, M. Merzagora, M. Monforti, B. Candoni, *Mechanistic and phenomenological models of radiation induced biological damages*, *Physica Medica*, Pisa, vol XII n. 3 p. 154 (1996)

#### **1997**

[238] M. Pugliese, M. Durante, G. G. Grossi, F. Monforti, D. Orlando, A. Ottolenghi, P. Scampoli and G. Gialanella *Effects of single alpha-particle traversals: a method based on nuclear track detectors*. 3rd International Workshop: Microbeam probes of cellular radiation response, Columbia University, New York May 8-9, 1997.

[239] G. Gagliardi, J. Bjöhle, A. Ottolenghi, I. Lax *Radiation Pneumonitis after radiotherapy for breast cancer: analysis of the complication probability using the relative seriality model*. World Congress on Medical Physics and Biomedical Engineering, Nice, France, September 14-19, 1997, p. 932.

[240] F. Monforti, F. Ballarini, M. Merzagora, A. Ottolenghi, M. Durante, O. Greco, G.F. Grossi, M. Pugliese, G. Gialanella, *Ratios of the yields of different chromosomal aberrations as biomarkers of radiation quality* European Radiation Research '97, Oxford, 24th-26th September, 1997, 157 (1997).

#### **1998**

[241] A. Ottolenghi, F. Ballarini, M. Merzagora, F. Monforti, *Tests of the role of DNA clustered lesions in the induction of inactivation, chromosomal aberrations and mutations*. The 46th RRS meeting, Louisville, USA, Aprile 1998 (book of abstracts) p. 154

[242] F. Ballarini, F. Monforti, M. Merzagora and A. Ottolenghi. *Chromosome aberration induction by light ions. An ab initio model based on track structure studies*. 9th L.H. Gray workshop, 10th-13th september 1998, Harwell, UK.

[243] A Ottolenghi, F Ballarini, M Merzagora, *Modelling radiation induced biological lesions: from initial energy depositions to chromosome aberrations*. In: The 9<sup>th</sup> L.H. Gray Workshop, Harwell (UK), September 10-13, 1998, Book of Abstracts.

[244] F. Ballarini, M. Merzagora, F. Monforti, M. Durante, G. Gialanella, G.F. Grossi, M. Pugliese, A. Ottolenghi. *A mechanistic model of chromosome aberrations induced by light ions*. Capri, 29th meeting of the European Society for Radiation Biology, Capri, 3rd-7th October 1998, Book of abstracts, p 176.

[245] M. Merzagora, E. Chersi, W. Friedland, P. Jacob, A. Ottolenghi, H.G. Paretzke, *Approximations involved in the simulation of the time dependent yields of radical species produced in water radiolysis*. Capri, 29th meeting of the European Society for Radiation Biology, Capri, 3rd-7th October 1998, Book of abstracts, p 36.

[246] P. Jacob, W. Friedland, M. Merzagora, A. Ottolenghi and H.G. Paretzke, *Patterns of damage to DNA in chromosome domains after exposures to photon and electron radiation*, 29th meeting of the European Society for Radiation Biology, Capri, 3rd-7th October 1998, Book of abstracts, p 33.

#### **1999**

[247] W. Friedland, P. Jacob, H. G. Paretzke, M. Merzagora, A. Ottolenghi, *Partrac simulation of DNA fragments after photon irradiation*. 6th International Workshop on Radiation Damage to DNA. Chapel Hill, NC, USA, April 17-22, 1999

[248] M. Biaggi, F. Ballarini, W. Burkard, E. Egger, A. Ferrari, A. Ottolenghi, *Analisi teorica e sperimentale delle caratteristiche fisiche e biofisiche di fasci di protoni terapeutici* LXXXV Congr. Nazionale SIF, Pavia, 20-24 sett. 1999, p.157 (1999)

[249] F. Ballarini, M. Biaggi, W. Burkard, E. Egger, A. Ferrari, A. Ottolenghi, *Model predictions and experimental data on cell survival in a fully modulated proton beam*. The 11th International Congress of Radiation Research, Dublin, Ireland, July 18-23, 1999, Vol. 1: Abstracts, p. 286

[250] A. Ottolenghi *Modelli meccanicistici e fenomenologici per la stima del danno biologico da radiazione*. Lezione tenuta al corso AIFM su Uso pratico dei modelli TCP e NTCP per la valutazione dei piani di trattamento in radioterapia. Como, 13-15 ottobre 1999.

#### **2000**

[251] M Biaggi, F Ballarini, A Ferrari, A Ottolenghi, M Pelliccioni, *A Monte Carlo code for a direct estimation of radiation risk*. In: L Iadanza, A Liccardi (eds.), 1st International workshop on space radiation

research and 11th annual NASA space radiation health investigators' workshop, Arona (Italy), May 27-31, 2000, Book of Abstracts, p 24.

- [252] A. Ottolenghi, F. Ballarini, M. Biaggi, *Modelling chromosomal aberration induction by ionising radiation: mechanistic approaches based on track structure simulations*, 33<sup>rd</sup> COSPAR Scientific Assembly, Warsaw, Poland, 16-23 July, 2000 Published in CD.
- [253] F. Ballarini, M. Biaggi, A. Ottolenghi, *Mechanisms of induction of chromosome aberration in human cells by ionising radiation: a model and a Monte Carlo simulation based on interphase chromosome organisation*, Cargese DNA summer school, Cargese, France, August 2000 p. P2.
- [254] M. Biaggi, F. Ballarini, W. Burkard, E. Egger, A. Ferrari, A. Ottolenghi, D. Scannicchio, *A method for analysing and comparing physical and radiobiological characteristics of therapeutic proton beams: an application to the OPTIS facility and possible generalisations*. In: International conference on ocular pathologies therapy with proton beams, Catania (Italy), October 12-13, 2000, Book of abstracts, p 44.
- [255] F. Ballarini, M. Biaggi, A. Ottolenghi, *Modelli e simulazioni dell'interazione tra radiazioni ionizzanti e strutture biologiche*. In: X Convegno nazionale della Societa' Italiana per le Ricerche sulle Radiazioni, Frascati (Roma, Italy), November 19-22, 2000, Book of abstracts, p 20.

### **2001**

- [256] F. Ballarini, M. Biaggi, A. Ottolenghi, *Modelling chromosomal structure and aberration formation*. 13<sup>th</sup> Symposium on Microdosimetry, Stresa (Italy), May 27-June 1, 2001, Book of abstracts p P20.
- [257] A. Edwards, A. Ottolenghi, F. Ballarini, *Modelling chromosome aberrations*. 13<sup>th</sup> Symposium on Microdosimetry, Stresa (Italy), May 27-June 1, 2001, Book of abstracts F9.
- [258] F. Ballarini, M. Biaggi, W. Friedland, P. Jacob, A. Ottolenghi, A. Panzarasa, H. Paretzke, V. Vicinanza, *Single- and double-strand breaks induced by low energy electrons: models and Monte Carlo simulations*. VII International workshop "Radiation damage to DNA", Orleans (France), Sept. 2-7, 2001
- [259] A. Ottolenghi, F. Ballarini, M. Biaggi, *Biophysical Models of Radiation Effects*. 31<sup>st</sup> Annual meeting of the European Society for Radiation Biology and 5<sup>th</sup> annual meeting of the German Society for Biological Radiation Research, Dresden (Germany), September 1-5, 2001 p. 7
- [260] F. Ballarini, M. Biaggi, A. Ottolenghi, *Organizzazione dei cromosomi in interfase e aberrazioni cromosomiche: modelli e simulazioni Monte Carlo*. LXXXVII Congresso nazionale Società Italiana di Fisica, Milano - Bicocca, September 24-29, 2001 p. 86

### **2002**

- [261] F. Ballarini, A. Ottolenghi, *Bystander effects and adaptive response: problems in quantifying the different phenomena for radiation risk assessment*. 20<sup>th</sup> LH Gray Conference -Radiation cancer analysis and low dose risk estimation: new developments and perspectives, Ede, The Netherlands, February 17-21, 2002, Book of abstracts.
- [262] A. Ottolenghi. *Dalla struttura di traccia all'end-point biologico: modelli, codici e simulazioni MC per lo studio dell'azione della radiazione ionizzante e dei processi di formazione del danno*, *DOSIMETRIA: Tecnologie di base, Applicazioni mediche, Applicazioni ambientali, Workshop, Roma, 5-6 Febbraio 2002* p. 1
- [263] F. Ballarini, M. Biaggi, A. Ferrari, A. Ottolenghi, M. Pelliccioni, D. Scannicchio, *Influence of the shielding on the space radiation biological effectiveness. IV. Modelling*. The 2<sup>nd</sup> International Workshop on Space Radiation Research, Nara, Japan, March 11-15, 2002, Book of abstracts, p. 40
- [264] A. Ottolenghi, F. Ballarini. *From track structure to biological damage: induction and evolution of DNA lesions*, ESRB meeting, Liege, 4-7 September 2002
- [265] F. Ballarini, A. Ottolenghi, D. Scannicchio, A. Valota *Ruolo dell'organizzazione del dna in interfase nella formazione del danno iniziale e delle aberrazioni cromosomiche radioindotte* XI Convegno Nazionale SIRR, Piano di Sorrento, 15-17 settembre 2002, Book of Abstracts, p. 93
- [266] F. Ballarini, A. Ottolenghi, O. Saporita, *Comunicazione cellulare ed effetto "bystander": dati sperimentali, modelli teorici e possibili meccanismi* XI Convegno Nazionale SIRR, Piano di Sorrento, 15-17 settembre 2002, Book of Abstracts, p. 29
- [267] F. Gramegna, P.F. Mastinu, A. Lanchais, S. Barlini, A. Moroni, A. Giussani, E. Galbusera, E. Gadioli, A. Ottolenghi, F. Albertini, G. Casini, M. Chiari, A. Nannini, P.M. Milazzo, A. Ordine. *Misure di sezione d'urto di interesse per la radioterapia ed i rischi da radiazione per astronauti: reazioni indotte da fasci di carbonio*. Alghero, 26 settembre - 1 ottobre 2002
- [268] F. Ballarini, M. Biaggi, L. De Biaggi, A. Ferrari, A. Ottolenghi, A. Panzarasa, M. Pelliccioni, P. Sala, D. Scannicchio *Calculation of physical and "biological" dose in different organs after a solar particle event: role of shielding conditions* 34<sup>th</sup> COSPAR Scientific Assembly, Houston, October 2002. Published in CD.
- [269] A. Ottolenghi, F. Ballarini *Chromosome aberrations as biomarkers of radiation quality: modelling basic mechanisms* 34<sup>th</sup> COSPAR Scientific Assembly, Houston, October 2002



[270] A. Ferrari, F. Ballarini, F. Cerutti, A. Empl, A. Fassò, M.V. Garzelli, A. Ottolenghi, L.S. Pinsky, J. Ranft, S. Roesler, P.R. Sala, T.L. Wilson *The FLUKA code for space applications: recent developments* 34<sup>th</sup> COSPAR Scientific Assembly, Houston, ottobre 2002

### **2003**

[271] F. Ballarini, G. Battistoni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, J. Ranft, S. Roesler, P.R. Sala. *The physics models of FLUKA : status and recent developments*, CHEP03 – 2003 Conference for Computing in High Energy and Nuclear Physics, La Jolla, Ca, USA , March 24-28, 2003

[272] A. Fassò, A. Ferrari, S. Roesler, J. Ranft, P.R. Sala, F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, L. DeBiaggi, E. Gadioli, M. V. Garzelli, A. Ottolenghi, M. Pelliccioni, T. Rancati, D. Scannicchio, S. Villari ,V. Anderson, A. Empl, K. Lee, L. Pinsky, T.N. Wilson, N. Zapp *The FLUKA project*, CHEP03 – 2003 Conference for Computing in High Energy and Nuclear Physics, La Jolla, Ca, USA , March 24-28, 2003.

[273] F. Ballarini, W. Friedland, P. Jacob, S. Molinelli, A. Ottolenghi, H.G. Paretzke, M. Rossetti, D. Scannicchio, A. Valota *Protective role of OH scavengers and DNA/chromatin organization in the induction of DNA breaks: mechanistic models and Monte Carlo simulations* 12th Int. Congress of Radiation Research, Brisbane, Australia, 16-21 August 2003 p. 137.

[274] F. Ballarini, A. Ottolenghi *A model and code for the simulation of radiation-induced chromosome aberrations detectable with GEMSA or FISH*. 12th Int. Congress of Radiation Research, Brisbane, Australia, 16-21 August 2003 p. 387.

[275] A. Pannella, A. Ottolenghi, D. Scannicchio, L. Moro. *Sviluppo di una procedura per la valutazione della qualità dell'immagine di un sistema per radiografia digitale*, LXXXIX congresso SIF, Parma, 17-22 settembre 2003.

[276] F. Ballarini and A. Ottolenghi, *Modelling radiation-induced chromosome aberrations: role of track structure and chromosome organisation*. 6th International Symposium on Chromosomal Aberrations, Essen, 10-13 September 2003.

[277] Barlini S., Mastinu P.F., Moroni A., Galbusera E., Giussani A., Gadioli E., Ballarini F., D'Agostino M., Vannini G., Casini G., Gramegna F., Ordine A., Chiari M., Nannini A., Bruno M., Geraci E., Ottolenghi A., Murano M., Lanchais A., Cherubini R., Vannucci L., Boscolo Marchi E. *Cross-section measurements relevant for radiotherapy and for the evaluation of the health risk for astronauts* , LXXXIX congresso SIF, Parma, 17-22 settembre 2003.

[278] G. Battistoni, M. Cavinato, F. Cerutti, A. Clivio, E. Fabrici, E. Gadioli, E. Gadioli Erba, M. V. Garzelli, A. Mairani, A. Ferrari, F. Ballarini, A. Ottolenghi, A. Empl, L. Pinsky, A. Fassò, J. Ranft and P. Sala. *Heavy ion interactions from Coulomb barrier to some GeV/n: Boltzmann master equation theory and FLUKA code performances*. V Latinamerican Symposium on Nuclear Physics, Santos, Brazil, 1-5 September, 2003, p. 82.

[279] F. Ballarini, G. Battistoni, M. Cavinato, F. Cerutti, A. Clivio, A. Empl, E Fabrici, A. Fassò, F. Ferrari, E. Gadioli, E. Gadioli Erba, M. V. Garzelli, A. Mairani, A. Ottolenghi, L. Pinsky, J. Ranft and P. R. Sala, *Comprehensive cross-section calculations in heavy ion reactions*. NATO Advances Study Institute "Structure and Dynamics of Elementary Matter", Kemer, Turkey, 22 Sept. - 2 Oct., 2003

[280] M. Belli, A. Campa, V. Dini, G. Esposito, G. Simone, M.A. Tabocchini, R. Cherubini, S. Gerardi, A. Ottolenghi, F. Ballarini, S. Molinelli, W. Friedland, H. Paretzke *DNA dsb induced in mammalian cells by charged particles and gamma rays: experimental results and theoretical approaches* 9<sup>th</sup> HCPBM Workshop and ENLIGHT Meeting, LYON, France, 2-5 October 2003, p. 5.

[281] F. Ballarini, G. Battistoni, L. De Biaggi, M. Campanella, M. Carboni, F. Cerutti, A. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, M. Pelliccioni, L. Pinsky, J. Ranft, S. Roesler, P.R. Sala, D. Scannicchio, R. Villari, *Il codice di trasporto FLUKA per applicazioni radiobiologiche*. Il Riunione Nazionale della Società Italiana per le Ricerche sulle Radiazioni - I Convegno Nazionale della Federazione Italiana per le Ricerche sulle Radiazioni, Legnaro-Padova, 20-22 Novembre 2003, p. 69.

[282] F. Ballarini, W. Friedland, S. Molinelli, A. Ottolenghi, H.G. Paretzke, M. Rossetti, A. Valota, *Modelli meccanicistici di danno al DNA e aberrazioni cromosomiche da radiazioni ionizzanti*. Il Riunione Nazionale della Società Italiana per le Ricerche sulle Radiazioni - I Convegno Nazionale della Federazione Italiana per le Ricerche sulle Radiazioni, Legnaro-Padova, 20-22 Novembre 2003, p. 5.

### **2004**

[283] F. Ballarini and A. Ottolenghi, *Radiation-induced chromosome aberrations: estimating translocation yields and cancer risk down to low doses*, Int. workshop on radiation health effects at low doses or low dose rates, Munich, 16-18 Feb 2004, p. 18.

[284] L. Pinsky...A. Ottolenghi ..., *The application of FLUKA to dosimetry and radiation therapy*. International Conference on Radiation Shielding (IRCS-10) and Thirteenth Topical Meeting on Radiation Protection and Shielding (RPS-2004), Funchal, Madeira Island (Portugal) 9-14 May 2004.

[285] F. Ballarini and A. Ottolenghi, *Chromosome aberrations induced by low doses of low- and high-LET radiation: a modelling approach*. 3<sup>rd</sup> International Workshop on Space Radiation Research and 15<sup>th</sup>

- Space Radiat. Health Investigators' workshop, Port Jefferson, New York, May 16-20, 2004. Book of abstracts, p. 35.
- [286] A. Ottolenghi and F. Ballarini, *Ab initio modelling of radiation damage: from track structure to biological endpoints*. RADAM Conference, Lyon 24-27 June 2004, Book of abstracts.
- [287] F. Ballarini, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, H. Paretzke, V. Parini, M. Pelliccioni, L. Pinsky, P. Sala, M. Zankl. *Models and Monte Carlo simulations of GCR and SPE organ doses with different shielding based on the FLUKA code coupled with anthropomorphic phantoms*. 35th COSPAR Scientific Assembly Paris, France, 18 - 25 July 2004. Published in CD.
- [288] A. Ferrari, V. Andersen, F. Ballarini, G. Battistoni, F. Cerutti, A. Empl, A. Fassò, M.V. Garzelli, K. Lee, A. Ottolenghi, L. Pinsky, J. Ranft, S. Roesler, P.R. Sala, G. Smirnov, T. Wilson, N. Zapp. *The FLUKA code: new developments and applications for radiation protection in deep space*. 35th COSPAR Scientific Assembly Paris, France, 18 - 25 July 2004. Published in CD.
- [289] F. Ballarini, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, L.S. Pinsky, J. Ranft, P.R. Sala, *Heavy-ion collisions in the FLUKA Monte Carlo event generator: present and perspectives*. INPC 2004, Goteborg, Sweden, June 2004, p. 454.
- [290] F. Ballarini, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, V. Parini, L. Pinsky, P. Sala. *Modelling radiation-induced cellular damage: nuclear models and data needed for radiation protection and hadrontherapy*, 2004 Nuclear Data Conference, Santa Fe (NM, USA), September 26-October 1, 2004, p. 25
- [291] F. Cerutti, F. Ballarini, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, J. Ranft, P.R. Sala, *Comprehensive calculations of heavy ion interactions*. 2004 Nuclear Data Conference, Santa Fe, NM, USA September 26-October 1, 2004, p. 72
- [292] L. Pinsky, G. Battistoni, T. Wilson, N. Zapp, S. Roesler, F. Cerutti, A. Empl, A. Ferrari, A. Fassò, M.V. Garzelli, J. Ranft, P. Sala, V. Lachoudis, A. Ottolenghi, F. Ballarini, E. Gadioli, D. Scannicchio, Update on the status of the FLUKA Monte Carlo transport code. CHEP 2004, Interlaken, Switzerland, Sept. 27-Oct. 1 2004, Book of abstracts.
- [293] F. Ballarini, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, H. Paretzke, V. Parini, M. Pelliccioni, L. Pinsky, P. Sala, M. Zankl, *Simulazione degli effetti della radiazione spaziale mediante integrazione tra il codice MC FLUKA e fantocci antropomorfi*. XC Congresso Nazionale Società Italiana di Fisica, Brescia, 20-25 settembre 2004, p. 85
- [294] F. Gramegna, S. Barlini, V.L. Kravchuk, A. Lanchais, Boscolo, E. Marchi, P.F. Mastinu, L. Vanucci, F. Cerutti, E. Gadioli, A. Moroni, M. Murano, M. Cabinato, E. Fabrici, E. Gadioli Erba, A. Giussani, M. Bruno, M. D'Agostino, E. Geraci, G. Casini, M. Chiari, A. Nannini, P. Del Carmine, F. Ballarini, A. Ottolenghi, P.M. Milazzo, A. Ordine, G. Giordano, *Large-angle  $\alpha$  particle emission in  $^{12}\text{C}+^{12}\text{C}$  and  $^{16}\text{O}+^{12}\text{C}$  reactions*. XC Congresso Nazionale Società Italiana di Fisica, Brescia, 20-25 settembre 2004, p. 139
- [295] F. Ballarini, A. Ottolenghi, *Aberrazioni cromosomiche e leucemia mieloide cronica radioindotta: un approccio modellistico*. XII Convegno nazionale della Società Italiana per le Ricerche sulle Radiazioni (SIRR), Genova, 9-12 novembre 2004. Radiazioni - Ricerca e Applicazioni, periodico della Società Italiana per le ricerche sulle radiazioni, Suppl. vol. VII/2, p. 24.
- [296] F. Cerutti, F. Ballarini, G. Battistoni, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Ottolenghi, L. Pinsky, J. Ranft, P.R. Sala, D. Scannicchio, *Il codice FLUKA per la radioprotezione nello spazio: caratterizzazione fisica dei prodotti di interazione ioni-schermatura*. XII Convegno nazionale della Società Italiana per le Ricerche sulle Radiazioni (SIRR), Genova, 9-12 novembre 2004, p. 35
- 2005**
- [297] Ottolenghi, D. Alloni, F. Ballarini, D. Scannicchio, *Modelling the evolution of radiobiological damage with focus on target structures*. RADAM Conference 2005, Potsdam, 17-20 March, 2005. Book of abstracts p. 33
- [298] D. Alloni, F. Ballarini, A. Mairani and A. Ottolenghi, *Bystander Effect: a diffusion-based modelling approach*. Bad Honnef, RISC-RAD annual meeting, April 2005.
- [299] F. Ballarini, D. Alloni, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, H.G. Paretzke, V. Parini, M. Pelliccioni, L.S. Pinsky, P.R. Sala, D. Scannicchio, M. Zankl, *Modelling human exposure to space radiation with different shielding: the FLUKA code coupled with anthropomorphic phantoms*. The NPDC19 conference, Pavia, 5-9 Sept. 2005, Book of abstracts p. 35.
- [300] F. Cerutti, F. Ballarini, G. Battistoni, P. Colleoni, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, L.S. Pinsky, P.R. Sala, D. Scannicchio. *Analysis of Carbon-induced reactions at low incident energies*. The NPDC19 conference, Pavia, 5-9 Sept. 2005, Book of abstracts p. 44.
- [301] M.V. Garzelli, F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, A. Ottolenghi, L.S. Pinsky, J. Ranft, P.R. Sala, *Heavy-ion collisions: preliminary results of a new QMD model coupled with FLUKA and recent developments of the RQMD-FLUKA interface*. The NPDC19 conference, Pavia, September 5-9 2005, Book of abstracts p. 110.
- [302] F. Ballarini, G. Battistoni, F. Cerutti, T. Empl, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A.

- Mairani, S. Muraro, A. Ottolenghi, M. Pelliccioni L.S. Pinsky, J. Ranft, P.R. Sala, D Scannicchio, V. Vlachoudis. *The FLUKA code: an overview*. The NPDC19 conference, Pavia, 5-9 Sept. 2005, Book of abstracts p. 37.
- [303] F. Ballarini, D. Alloni, A. Facchetti, A. Mairani, R. Nano, A. Ottolenghi. Modelling approaches in investigating cell communication and bystander effects following irradiation. 14<sup>th</sup> Symposium of Microdosimetry, Venice, November 2005.
- [304] W. Friedland, P. Jacob, H. G. Paretzke, A. Ottolenghi, F. Ballarini, M. Liotta. *Simulation of light ion induced DNA damage patterns*. 14<sup>th</sup> Symposium of Microdosimetry, Venice, November 2005.
- [305] D. Alloni, F. Ballarini, W. Friedland, M. Liotta, S. Molinelli, A. Ottolenghi, H.G. Paretzke, M. Rossetti. Role of DNA/chromatin organisation and scavenging capacity in USX- and proton- induced DNA damage 14<sup>th</sup> Symposium of Microdosimetry, in Venice, November 2005.
- [306] A. Facchetti, F. Ballarini, R. Cherubini, S. Gerardi, R. Nano, A. Ottolenghi, K.M. Prise, K.R. Tott, C. Zilio. Gamma ray-induced bystander effect in tumour glioblastoma cells: a specific study on cell survival, cytokine release and cytokine receptors. 14<sup>th</sup> Symposium of Microdosimetry, Venice, Nov. 2005
- [307] S. Trovati, F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, H.G. Paretzke, V. Parini, M. Pelliccioni, L. Pinsky, P.R. Sala, D. Scannicchio and M. Zankl. *Human exposure to space radiation: role of primary and secondary particles*. 14<sup>th</sup> Symposium of Microdosimetry, Venice, November 2005.
- [308] F. Cerutti, F. Ballarini, G. Battistoni P. Colleoni, A. Ferrari, S. V. FÄortsch, E. Gadioli, M. V. Garzelli, A. Mairani, A. Ottolenghi, L S. Pinsky, and P. R. Sala. *Light ion interactions of concern for hadrontherapy*. VI Latin American Symposium on Nuclear Physics and Applications, Iguazú, Argentina. October 3 to 7, 2005, Book of abstracts, p. 24
- [309] V. Andersen, N. Elkhayari, A. Empl, M. LeBourgeois, K. T. Lee, B. Mayes, L. S. Pinsky, G. Smirnov, N. Zapp, T. N. Wilson, F. Ballarini, G. Battistoni, M. Campanella, M. Carboni, F. Cerutti, E. Gadioli, M. V. Garzelli T. Rancati, S. Muraro, A. Ottolenghi, M. Pelliccioni, P. Sala, D. Scannocio, A. Ferrari, S. Roesler, V. Vlachoudis, J. Ranft and A. Fassò. *The FLUKA Monte Carlo Transport Code Used for Space Radiation Measurement and Protection*. VI Latin American Symposium on Nuclear Physics and Applications Iguazú, Argentina. October 3 to 7, 2005, Book of abstracts, p. 25
- [310] T. L. Wilson, N. Zapp, A. Empl, L. S. Pinsky, G. Battistoni, M. Campanella, F. Cerutti, E. Gadioli, M. V. Garzelli, S. Muraro, T. Rancati, P. R. Sala, F. Ballarini, A. Ottolenghi, D. Scannicchio, A. Fassò, A. Ferrari, S. Roesler, V. Vlachoudis, J. Ranft, M. Carboni and M. Pelliccioni. *Space Applications of the FLUKA Monte-Carlo Code: Lunar and Planetary Exploration* VI Latin American Symposium on Nuclear Physics and Applications Iguazú, Argentina. October 3 to 7, 2005, Book of abstracts, p. 26
- 2006**
- [311] M.V. Garzelli, P. Sala, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, F. Ballarini, A. Ottolenghi, A. Fassò, L. Pinsky, J. Ranft, *Correlations in the interactions of ion beams with matter*. Rila conference, Rila (Bulgaria), June 2006.
- [312] A. Ottolenghi, D. Alloni, F. Ballarini, A. Facchetti, A. Mairani, R. Nano, S. Trovati, D. Scannicchio, *Aspetti fisico-radiobiologici: conoscenze attuali e attività di ricerca*. La radioterapia con adroni: basi razionali e impiego clinico, Giornata Seminariale Inter-Universitaria. Novara, 7 luglio 2006
- [313] F. Ballarini, D. Alloni, A. Facchetti, A. Mairani, R. Nano, A. Ottolenghi, *Theoretical models and simulation codes to investigate bystander effects and cellular communication at low doses (invited talk)*. 36<sup>th</sup> COSPAR Scientific Assembly, Beijing, China, July 2006. Published on CD-ROM.
- [314] P. Sala, ..., A. Ottolenghi, ..., *The physics of the FLUKA code: recent developments*. 36<sup>th</sup> COSPAR Scientific Assembly, Beijing, China, July 2006. Published on CD-ROM.
- [315] F. Ballarini, M. Belli, A. Campa, G. Esposito, W. Friedland, A. Ottolenghi, H. Paretzke, *Modelization of DNA fragmentation induced in human fibroblasts by Fe-56 ions*. 36<sup>th</sup> COSPAR Scientific Assembly, Beijing, China, July 2006. Published on CD-ROM.
- [316] M.V. Garzelli, P. Sala, Ballarini G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, A. Ottolenghi, L. Pinsky, J. Ranft, *Hot fragment formation in heavy ion collisions at non relativistic energies*. 36<sup>th</sup> COSPAR Scientific Assembly, Beijing, China, July 2006. Published on CD-ROM.
- [317] W. Friedland, P. Jacob, H. Paretzke, A. Ottolenghi, F. Ballarini, M. Dingfelder, *Simulation of ion induced radiation damage in cells*. 36<sup>th</sup> COSPAR Scientific Assembly, Beijing, China, July 2006. Published on CD-ROM.
- [318] F. Ballarini, G. Battistoni, A. Ferrari, S. Muraro, A. Ottolenghi, M. Pelliccioni, L. Pinsky, P. Sala, R. Villari, *Applicazioni del codice FLUKA alla fisica dei raggi cosmici*. XCII Congresso SIF, Torino, 18-23 Settembre 2006. Book of Abstracts p 140.
- [319] A. Ottolenghi, D. Alloni, F. Ballarini, A. Mairani, D. Scannicchio, S. Trovati, *Mechanistic and phenomenological models of radiobiological damage*. Discussion Seminar About Radiation Quality Assessment in Hadrontherapy - Legnaro, 30-31 October 2006

[320] A. Campa, D. Alloni, F. Ballarini, M. Belli, G. Esposito, W. Friedland, M. Liotta, A. Ottolenghi, H. Paretzke, *Modellizzazione della frammentazione del DNA indotta in fibroblasti umani da ioni Fe-56*. Convegno SIRR, Bologna, Novembre 2006, Book of Abstracts.

[321] A. Facchetti, F. Ballarini, L. D'Ercole, E. Gino, F. Lisciando, L. Mantovani, R. Nano, S. Siviero, A. Ottolenghi, *Meccanismi dell'effetto bystander: modulazione della produzione di citochine, indotta da radiazioni ionizzanti*. Convegno SIRR, Bologna, Novembre 2006, Book of Abstracts.

### **2007**

[322] F. Ballarini, C. Cremer, G. Kreth, A. Ottolenghi, *Biophysical models of chromosome radiation effects (invited talk)*. 1st Int. Workshop on Systems Radiation Biology, Neuherberg/Munich, Germany, 14-16 February 2007, Book of Abstracts.

[323] G. Givone, F. Ballarini, G. Battistoni, M. Briccarello, M. Durante, A. Ferrari, M. Garzelli, C. Lobascio, A. Mairani, S. Muraro, A. Ottolenghi, P. Sala, D. Scannicchio, S. Trovati, A. Zanini, *Space radiation shielding on the moon: preliminary calculations*. ISSBB 2007, Bari, Italy, 29-31 March 2007.

[324] F. Ballarini, G. Battistoni, F. Cerutti, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, L.S. Pinsky, P.R. Sala, S. Trovati, *Modelling the radiation action for the estimation of biological effects in humans*. Int. Conf. on Nucl. Data for Science and Technology, Nice, France, April 22-27 2007, Book of Abstracts.

[325] A. Ottolenghi, D. Alloni, F. Ballarini, A. Facchetti, A. Mairani, R. Nano, S. Trovati, D. Scannicchio *Radiobiologia degli adroni carichi: conoscenze attuali e attività di ricerca* Convegno Congiunto IGM-CNR, 22-23 Febbraio 2007, Pavia

[326] MV Garzelli ... Ottolenghi,... Int. Conf. on Nucl. Data for Science and Technology, Nice, France, April 22-27 2007, Book of Abstracts.

[327] A. Ottolenghi, F. Ballarini, C. Cremer, G. Kreth, *Models and simulations of radiation induced chromosome damage*. Radiation Damage in Biomolecular Systems RADAM'07, 19th - 22nd June 2007, Dublin, Ireland, Book of Abstracts

[328] F. Ballarini, A. Ottolenghi, *Modeling radiation-induced chromosome aberrations*. Int Cong. Radiat Res, S. Francisco, 8-12 July 2007, Book of Abstracts.

[329] A. Facchetti, D. Alloni, F. Ballarini, A. Mairani, L. Mariotti, R. Nano, A. Ottolenghi, *How do experimental conditions and radiation affect cytokine signals ?* Int Cong. Radiat Res, S. Francisco, July 2007, Book of Abstracts.

[330] C. Lobascio, F. Ballarini, M. Briccarello, M. Casolino, R. Destefanis, M. Faraud, G. Gialanella, G. Givone, G. Grossi, V. Guarnieri, L. Manti, A. Ottolenghi, M. Pugliese, A. Rusek, P. Scampoli, A. Zanini and M. Durante, *Radiation shielding properties of materials used in human space infrastructures: a ground-based and international space station study of kevlar and nextel*. Annual NASA Space Radiation Health Investigators' Workshop, California, July 2007, Book of Abstracts.

[331] D. Alloni, F. Antonelli, F. Ballarini, M. Belli, A. Campa, V. Dini, G. Esposito, W. Friedland, M. Liotta, A. Ottolenghi, H. G. Paretzke, G. Simone, E. Sorrentino, M. A. Tabocchini, *Small DNA fragments induced in human fibroblasts by <sup>56</sup>Fe ions: experimental data and MC simulations*. Proc. "Ion Beams in biology and medicine, Heidelberg, 26-29 September 2007, ed. by J Debus, K Henrichs, G Kraft, p 164

[332] S.V. Förtsch, E.Z. Buthelezi, H. Fujita, R. Neveling, F.D. Smit, F. Ballarini, G. Battistoni, F. Cerutti, A. Fassò, A. Ferrari, E. Gadioli, M.V. Garzelli, A. Mairani, A. Ottolenghi, P.R. Sala, A. A. Cowley, S.H. Connell, J. Dlamini, *Complete and Incomplete Fusion Processes in the <sup>12</sup>C + <sup>12</sup>C System at an Energy of 16.7 MeV/nucleon*. INPC 2007.

[333] M. Pugliese, F. Ballarini, T. Berger, M. Briccarello, M. Casolino, R. Destefanis, M. Faraud, G. Gialanella, G. Givone, G. Grossi, V. Guarnieri, C. Lobascio, L. Manti, A. Nagamatsu, A. Ottolenghi, P. Picozza, G. Reitz, A. Rusek, P. Scampoli, A. Zanini, M. Durante, *Radiation shielding properties of Kevlar and Nextel in human space infrastructures*. Proc. "Ion Beams in biology and medicine, Heidelberg, 26-29 September 2007, edited by J Debus, K Henrichs, G Kraft, p 40-41.

[334] A. Facchetti, A. Ottolenghi. *Modeller biologist interaction*, NOTE training course on Protocols and Pitfalls in the study of Non-Targeted Effects of Radiation, Crete, 15-16 September 2007

### **2008**

[335] A. Ottolenghi. *I modelli radiobiologici per la radioterapia con ioni carbonio*. Fondamenti di Radioterapia Oncologica e Radioterapia, Pavia, 28 febbraio – 1 marzo 2008

[336] A. Ottolenghi. *F22 Session Introductory talk* 2008 COSPAR Meeting, Montreal, Canada, July 2008,

[337] F. Ballarini, A. Facchetti, L. Mariotti, R. Nano, A. Ottolenghi, *Role of cellular communication in the pathways of radiation-induced biological damage*. 2008 COSPAR Meeting, Montreal, Canada, July 2008,

[338] A. Campa, D. Alloni, F. Antonelli, F. Ballarini, M. Belli, V. Dini, G. Esposito, A. Facchetti, W. Friedland, Y. Furusawa, M. Liotta, A. Ottolenghi, H. Paretzke, G. Simone, E. Sorrentino, M. A. Tabocchini, *DNA fragmentation pattern in human fibroblasts after irradiation with Iron ions*. 2008 COSPAR Meeting, Montreal, Canada, July 2008.

[339] A. Campa, A. Ottolenghi, D. Alloni, F. Ballarini, M. Belli, G. Esposito, A. Facchetti, W. Friedland, M. Liotta, H. Paretzke, *Dependence on radiation quality of DNA fragmentation spectra*. 2008 COSPAR Meeting,

Montreal, Canada, July 2008.

- [340] F. Ballarini and A. Ottolenghi, A theoretical model of chromosome aberration induction with applications for space research. ISSBB meeting, Udine, Italy, 1-3 April 2008. Book of abstracts p 14.
- [341] M. Durante, A. Ottolenghi, on behalf of the COUNT collaboration, *Countermeasures for the exposure to cosmic radiation: status of the experiment "COUNT"*. ISSBB meeting, Udine, Italy, 1-3 April 2008.
- [342] A. Bertolotti, F. Ballarini, L. D'Ercole, A. Facoetti, F. Lisciandro, L. Mantovani, L. Mariotti, R. Nano, A. Ottolenghi, F. Pasi. *Studio dei messaggeri cellulari coinvolti nell'effetto bystander: influenza delle condizioni sperimentali*. XIV Convegno nazionale SIRR, Trieste, Italy, 24 - 27 giugno 2008. Book of Abstracts, page 18.
- [343] G. Esposito, D. Alloni, F. Antonelli, F. Ballarini, M. Belli, A. Campa, V. Dini, W. Friedland, A. Facoetti, Y. Furusawa, M. Liotta, A. Ottolenghi, H.G. Paretzke, G. Simone, E. Sorrentino, M.A. Tabocchini *Frammentazione del DNA in fibroblasti umani dopo irradiazione con ioni ferro*. XIV Convegno nazionale SIRR, Trieste, Italy, 24 - 27 giugno 2008. Book of abstracts, page 27.
- [344] F. Ballarini, A. Ottolenghi, Mechanisms and implications of radiation-induced chromosome damage: an ab initio model and a Monte Carlo code. XCIV Congresso Nazionale SIF, Genova, 22-26 Settembre 2008. Book of abstracts.
- [345] A. Facoetti, R. Nano, A. Ottolenghi *The response of the central nervous system to ionizing radiation: A challenge for radiobiology*. 8<sup>th</sup> International Conference of Anticancer Research, Kos, Greece, October 17-22, 2008, Anticancer Research, 28, 5C p.
- [346] E. Ranza, A. Bertolotti, A. Facoetti, F. Pasi, A. Ottolenghi, R. Nano *Effect of imatinib mesylate (STI571) in combination with  $\gamma$ -irradiation on astrocytoma cells survival*. 8<sup>th</sup> International Conference of Anticancer Research, Kos, Greece, October 17-22, 2008, Anticancer Research, 28, 5C p. 3417
- [347] F. Pasi, A. Bertolotti, A. Facoetti, L. Mariotti, A. Ottolenghi, R. Nano. *Study of cytokines bystander signalling in human glioblastoma cells after exposure to gamma radiation*. 8<sup>th</sup> International Conference of Anticancer Research, Kos, Greece, October 17-22, 2008, Anticancer Research, 28, 5C p. 3439
- [348] A. Ottolenghi *Challenges for understanding and predicting ionizing-radiation health effects*, ENEA Workshop on Radiazioni ionizzanti: nuovi modelli per la stima del rischio. Roma, ENEA, 1 ottobre 2008
- [349] A. Ottolenghi, A. Facoetti, K. R. Trott, V. Smyth. *I modelli di valutazione degli effetti biologici delle dosi somministrate al di fuori del target*. XVIII Congresso Naz. AIRO, Milano, 15-18 Novembre 2008.
- 2009**
- [350] A. Ottolenghi, A. Facoetti, L. Mariotti. *Il contributo della modellistica*. Workshop su *La valutazione dei rischi sanitari delle basse dosi di radiazioni ionizzanti: la ricerca italiana e le sue prospettive nel contesto europeo*. Istituto Superiore di Sanità, Roma, 27 Febbraio 2009.
- [351] D. Alloni, A. Campa, M. Belli, G. Esposito, A. Facoetti, W. Friedland, M. Liotta, L. Mariotti, H. Paretzke, A. Ottolenghi. *Monte Carlo evaluation of DNA fragmentation induced by heavy ions*. Heavy Ions in Therapy and Space Symposium. Cologne, July 6-10, 2009 p.191
- [352] E. Sorrentino, A. Bertolotti, G. Esposito, A. Facoetti, S. Grande, L. Mariotti, R. Nano, A. Ottolenghi, E. Ranza, M.A. Tabocchini. *Investigation of signal transmission and bystander effects in relation to radiation quality*. Heavy Ions in Therapy and Space Symposium. Cologne, July 6-10, 2009 p 164
- [353] A. Ottolenghi, A. Facoetti, K.R. Trott and V. Smyth. *The ALLEGRO project: a European consortium on Early and late health risks to normal/healthy tissues from the use of existing and emerging techniques for radiation therapy*. Heavy Ions in Therapy and Space Symposium. Cologne, July 6-10, 2009 p.134
- [354] M. Belli, A. Ottolenghi, W. Weiss. *The European strategy on low dose risk research and the role of radiation quality according to the Recommendations of the "ad hoc" High Level and Expert Group (HLEG.)* Heavy Ions in Therapy and Space Symposium. Cologne, July 6-10, 2009 p.211
- [355] Facoetti A, Mariotti L, Bertolotti A, Ranza E, Pasi F, Nano R, Ottolenghi A. *Experimental and Theoretical study of cytokine release after gamma irradiation of human fibroblasts*. 4° Congresso Nazionale Italian Society for Space Biomedicine and Biotechnology. Santa Margherita Ligure, 31 marzo - 2 aprile 2009. P.68
- [356] Angelica Facoetti, Klaus R. Trott, Vere Smyth, Andrea Ottolenghi. *Mechanisms of normal tissue response: a task of the EU project ALLEGRO on the risks to healthy tissues in RT*. European Radiation Research Society, Prague 26-28 August 2009
- [357] Daniele Alloni, Alessandro Campa, Mauro Belli, Giuseppe Esposito, Angelica Facoetti, Werner Friedland, Marco Liotta, Luca Mariotti, Herwig Paretzke, Andrea Ottolenghi. *Monte Carlo simulation of DNA fragmentation induced by heavy ions*. XCV SIF (Italian Physical Society) 28/09/09/ - 03/10/09. p. 20
- [358] A. Ottolenghi *Nuovi aspetti radiobiologici per la comprensione degli effetti delle radiazioni ionizzanti sull'uomo Seminario - Dal dato dosimetrico all'indice di rischio per pazienti sottoposti ad esami di diagnostica per immagini* Polo Didattico Formativo S. Maria a Colle Maggiano (Lucca) 24 Marzo 2009
- [359] A. Ottolenghi, A. Facoetti, K. R. Trott and V. Smyth. *Effetti radiobiologici della dose integrale e stima del rischio nelle tecniche radioterapiche con fasci esterni*. VI Congresso Nazionale AIFM, Reggio Emilia, 16-19 Settembre 2009

- [360] Ottolenghi A, Facchetti A, Smyth V, Trott KR, on behalf of the ALLEGRO consortium *The risks to healthy tissues from the use of existing and emerging techniques for radiation therapy*. MICROS 2009 - 15th International Symposium on Microdosimetry, Verona, 25-30 October 2009 p.47
- [361] M Belli, S Salomaa, A Ottolenghi *MELODI – the "Multidisciplinary European LOw Dose Initiative"* MICROS 2009 - 15th International Symposium on Microdosimetry, Verona, 25-30 October 2009 p.46
- [362] D Alloni, A Campa, M Belli, G Esposito, A Facchetti, W Friedland, Marco Liotta, L Mariotti, H Paretzke, A Ottolenghi *Monte Carlo evaluation of DNA fragmentation spectra induced by different radiation qualities* MICROS 2009 - 15th International Symposium on Microdosimetry, Verona, 25-30 October 2009 p.22
- [363] L. Mariotti, A. Facchetti, D. Alloni, A. Bertolotti, E. Ranza, A. Ottolenghi *Radiation induced perturbation of cell-to-cell signaling and communication* MICROS 2009 - 15th International Symposium on Microdosimetry, Verona, 25-30 October 2009 p.76
- [364] A. Facchetti, K.R. Trott, V. Smyth, A. Ottolenghi. *Radiobiological mechanisms of the response of normal tissue in RT as investigated within the EU project ALLEGRO on the risks to healthy tissues*. XIX congresso AIRO, Bologna 14-17 Novembre 2009.
- [365] A. Ottolenghi *Il rischio di complicanze ai tessuti sani e di tumori secondari in radioterapia: la ricerca in ambito EURATOM*, L'ottimizzazione nell'impiego delle radiazioni ionizzanti in Medicina: ruolo dello specialista in Fisica Medica, Milano, 16 novembre 2009.
- [366] A. Ottolenghi *Allegro project*, Radiogenomics meeting, The University Of Manchester, Manchester, 17-18 November 2009
- [367] F. Pasi, A. Bertolotti, A. Facchetti, A. Ottolenghi, R. Nano. *Ionizing radiation effects in human glioblastoma cells: role of cytokines* New perspectives in neuroscience: Research results of young Italian Neuroscientists. Naples, 17 Aprile 2009
- 2010**
- [368] L. Mariotti, D. Alloni, D. Scannicchio, A. Ottolenghi. *An integrated stochastic/deterministic modeling approach to investigate the radiation-induced perturbation of cell signaling*. 4<sup>th</sup> Systems Radiation Biology Workshop, New York, 19-22 May 2010.
- [369] A. Ottolenghi, L. Mariotti, D. Cappelletti, D. Scannicchio *Stato della ricerca radiobiologica a basse dosi. Corso Dosimetria In Radiodiagnostica* Centro Congressi Villa Cagnola Gazzada (VA) 5-7 maggio 2010
- [370] L. Mariotti, D. Alloni, D. Cappelletti, D. Scannicchio, A. Ottolenghi, F. Antonelli, G. Esposito, G. Simone, A. Campa, M. Belli, M.A. Tabocchini, L D'Ercole, F Lisciandro, L Mantovani. *Un approccio integrato teorico-sperimentale per lo studio del cell signalling perturbato da radiazioni di diversa qualità. La Radiobiologia degli adroni carichi con acceleratori INFN: ricerca, sviluppo, applicazioni*. Istituto Superiore di Sanità, Roma, 08 June 2010
- [371] A. Ottolenghi, D. Alloni, D. Cappelletti, W. Friedland, L. Mariotti, D. Scannicchio. *La struttura di traccia come determinante dell'efficacia biologica*. La Radiobiologia degli adroni carichi con acceleratori INFN: ricerca, sviluppo, applicazioni. Istituto Superiore di Sanità, Roma, 08 June 2010
- [372] G. Esposito, A. Campa, F. Antonelli, L. Mariotti, M. Belli, P. Giardullo, G. Simone, M.A. Tabocchini, A. Ottolenghi. *DNA DSB measurements and modelling approaches based on  $\gamma$ -H2AX foci time evolution* COSPAR Scientific Assembly, Bremen, Germany, 18-25 July 2010.
- [373] G. Esposito, A. Bartolotti, Facchetti, Mariotti, A. Ottolenghi, G. Simone, E. Sorrentio, M.A. Tabocchini. *Radiation quality dependence of signal transmission and bystander induced cell killing*. COSPAR Scientific Assembly, Bremen, Germany, 18-25 July 2010.
- [374] L. Mariotti, D. Alloni, A. Ottolenghi. *Modelling cell-to-cell communication in a systems radiation biology framework*. 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July 2010.
- [375] C. Cutaia, D. Alloni, L. Mariotti, A. Ottolenghi. *DNA damage dependence on the subcellular distribution of low-energy  $\beta$  emitters*. 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July 2010.
- [376] L. Mariotti, D. Alloni, A. Ottolenghi. *How does radiation perturb cell communication?* *Radiation Research Annual Meeting*, Maui, Hawaii, 25-29 September 2010
- [377] L. Mariotti, D. Alloni, D. Scannicchio, A. Ottolenghi. *Simulation of cell signalling perturbation induced by radiation*. 38th Annual Meeting - ERR 2010 Stockholm, Sweden, September 5-9, 2010
- [378] L. Mariotti, D. Alloni, D. Cappelletti, D. Scannicchio, D. Volpi, A. Ottolenghi *Systems Radiation Biology: un possibile strumento per l'indagine dei meccanismi dell'effetto bystander?* XV Convegno Nazionale SIRR (Italian Society for Radiation Research), Roma, 27-29 ottobre 2010. Published in *Radiazioni Ricerca e Applicazioni Periodico della Società Italiana per le Ricerche sulle Radiazioni* Volume XIII n.1-2 p. 17
- [379] F. Antonelli, S. Grande, L. Mariotti, A. Rosi, G. Esposito, G. Simone, A. Campa, M. Belli, A. Ottolenghi, D. Cappelletti, A. Bertolotti, E. Ranza, A. Facchetti, M. A. Tabocchini, *Mediatori precoci e tardivi di effetti bystander* XV Convegno Nazionale SIRR (Italian Society for Radiation Research), Roma,

- 27-29 ottobre 2010. Published in *Radiazioni Ricerca e Applicazioni Periodico della Società Italiana per le Ricerche sulle Radiazioni* Volume XIII n.1-2 p.23
- [380] L. Mariotti, F. Antonelli, G. Esposito, G. Simone, A. Campa, M. Belli, D. Cappelletti, A. Bertolotti, E. Ranza, M. A. Tabocchini, A. Ottolenghi *Effetto bystander in fibroblasti umani in funzione della qualità della radiazione* XV Convegno Nazionale SIRR (Italian Society for Radiation Research), Roma, 27-29 ottobre 2010. Published in *Radiazioni Ricerca e Applicazioni Periodico della Società Italiana per le Ricerche sulle Radiazioni* Volume XIII n.1-2 p. 30
- [381] L. Mariotti, D. Alloni, D. Scannicchio, A. Ottolenghi. *Simulation of cell signalling perturbation induced by radiation*. 38th Annual Meeting - ERR 2010 Stockholm, Sweden, September 5-9, 2010
- [382] L. Mariotti, F. Antonelli, G. Esposito, G. Simone, A. Campa, M. Belli, D. Cappelletti, A. Bertolotti, E. Ranza, M.A. Tabocchini, A. Ottolenghi. *Bystander effects in human fibroblasts as a function of radiation quality*. 38th Annual Meeting - ERR 2010 Stockholm, Sweden, September 5-9, 2010
- [383] F. Antonelli, S. Grande, L. Mariotti, A. Rosi, G. Esposito, G. Simone, A. Campa, M. Belli, A. Ottolenghi, D. Cappelletti, A. Bertolotti, E. Ranza, A. Facchetti, M.A. Tabocchini. *Early and late mediators of the signalling chain leading to bystander effects*. 38th Annual Meeting - ERR 2010 Stockholm, Sweden, September 5-9, 2010
- [384] S. Salomaa, W. Weiss, J. Repussard, G. Bloch, F. Hardeman, V. Macellari, J. Harrison, M. Harms-Ringdahl, P. Vaz, F. Zölzer, A. Jouve, D. Averbek, A. Ottolenghi, L. Sabatier, M. Atkinson, S. Bouffler, P. Gourmelon, J.-R. Jourdain, G. Simone, S. Baatout, T. Jung, E. Cardis and J. Hall *European low dose risk research strategy, CHRONIC RADIATION EXPOSURE: LOW-DOSE EFFECTS*, 4th International Conference November 9-11, 2010, Chelyabinsk, Russia. Book of Abstracts, p 80-81 (2010)
- [385] K. Trott, A. Ottolenghi, V. Smyth. *Challenges of low dose exposure in medical uses of ionising radiation*. Second International MELODI Workshop, October 18-20, 2010 Paris, France
- [386] A. Ottolenghi, K R Trott, V Smyth, *ALLEGRO: understanding the risks of normal tissue complications and second cancers following radiotherapy*. ESTRO 29 CONGRESS, Barcelona, Spain from 12-16 September 2010 *Radiotherapy and Oncology* Vol 96 September 2010, p 131 (2010)
- [387] H. Langendijk, F. Van den Heuvel, K Trott, V. Smyth, A. Ottolenghi *The ALLEGRO project: what more do we need to know about normal tissue complication probability?* ESTRO29 Congress, Barcelona, Spain from 12-16 September 2010 *Radiotherapy & Oncology* Vol 96 Sept. 2010, p 183 (2010)
- [388] W. Dörr, M. Durante, F. Van den Heuvel, K. R. Trott, V. Smyth, A. Ottolenghi *The ALLEGRO project: what is the relevance of second cancers after oncological treatment, and which information is required?* ESTRO 29 CONGRESS, Barcelona, Spain from 12-16 September 2010 *Radiotherapy and Oncology* Vol 96 September 2010, p 183-184 (2010)
- [389] Cutaia C., Alloni D, Mariotti L., Friedland W., Ottolenghi A. *Dipendenza del danno al DNA dalle distribuzioni di emettitori di beta- di bassa energia nel nucleo e nel citoplasma cellulare*. XCVI SIF (Italian Physical Society), Bologna, September 20, 2010 Book of abstract
- [390] Alloni D., Mariotti L., Friedland W., Ottolenghi A. *Track structure, radiation quality and initial events in radiobiological damage*, MC2010, Stckholm, 9-12 November 2010
- [391] A. Ottolenghi, D. Alloni, L. Mariotti. *Effetti dell'irraggiamento sui sistemi cellulari* Corso AIFM su Modelli Predittivi Degli Effetti Della Radioterapia Con Fasci Esterni Firenze 24-26 novembre 2010
- [392] A. Ottolenghi, KR Trott, V. Smyth. *Modelli del rischio di tumori secondari dopo RT*. Corso AIFM su Modelli Predittivi Degli Effetti Della Radioterapia Con Fasci Esterni Firenze 24-26 novembre 2010
- 2011**
- [393] A. Ottolenghi, K.-R. Trott, V. Smyth, *The ALLEGRO Project: an overview*. ESTRO Anniversary Congress, London 8 – 12 May 2011. *Radiotherapy & Oncology* 99S1, May 2011 p S46 (2011)
- [394] D. Alloni, W. Friedland, L. Mariotti, A. Ottolenghi. *DNA fragmentation after heavy ion irradiation*. DoReMi Modelling Workshop. 7 July 2011. Brussels
- [395] L. Mariotti. *Systems Biology. Modelling of radiation-induced perturbation of cell signalling*. DoReMi Modelling Workshop. 7 July 2011. Brussels
- [396] L. Mariotti, D. Cappelletti, D. Alloni, G. Babini, D. Volpi, A. Ottolenghi. *Investigation of signaling perturbation in cells exposed at low doses of ionizing radiation*. 14th International Congress of Radiation Research Warsaw, Poland, August 28 - September 1, 2011
- [397] G. Babini, D. Cappelletti, D. Alloni, L. Mariotti, D. Volpi, A. Ottolenghi. *Evaluation of NF-kB signaling in a possible bystander effect scenario*, 14th International Congress of Radiation Research Warsaw, Poland, August 28 - September 1, 2011
- [398] A. Ottolenghi, D. Alloni, L. Mariotti, W. Friedland, K.M. Prise, G. Schettino. *Modelling of DNA damage dependence on radiation quality*. 14th International Congress of Radiation Research Warsaw, Poland, August 28 - September 1, 2011
- [399] G. Pirovano, L. Mariotti, A. Ottolenghi, K. Prise, G. Schettino. *Experimental and theoretical investigation of the induction and repair of DNA damage following acute and split-dose irradiations*. 14th International Congress of Radiation Research Warsaw, Poland, August 28 - September 1, 2011
- [400] G. Babini, L. Mariotti, D. Cappelletti, D. Alloni, A. Ottolenghi. *A systems radiation biology approach*

- for understanding the complex dynamics of NF-kB pathway and its perturbation. Systems Biology 2011, Stockholm 16-18 October 2011
- [401] V. Smyth, A. Ottolenghi, K.-R. Trott, *The DoReMi T+E initiatives: Current initiatives; options for networking; proposal to form a T+E network; achieving sustainability beyond DoReMi*, DoReMi / MELODI Training and Education, Rome, 2 November 2011
- [402] A Ottolenghi, D Alloni, G Babini, D Cappelletti, W Friedland, L Mariotti *Early events relevant for biological damage* Third MELODI Workshop Rome, 2 - 4 November 2011
- [403] A Ottolenghi, Vere Smyth and KR. Trott *The EURATOM Project ALLEGRO: Early and late health risks to normal/healthy tissues from the use of existing and emerging techniques for radiation therapy* Third MELODI Workshop Rome, 2 - 4 November 2011
- [404] L. Mariotti, G. Pirovano, A. Ottolenghi, K.M Prise, G. Schettino *Spatial and temporal DNA repair response for mammalian cells irradiated with low and high LET radiations*. Third MELODI Workshop Rome, 2 - 4 November 2011
- [405] G. Babini, D. Cappelletti, D. Alloni, L. Mariotti, A. Ottolenghi *NF-kB pathway and its perturbation: a systems radiation biology approach* Third MELODI Workshop Rome, 2 - 4 November 2011
- [406] D. Cappelletti, G. Babini, L. Mariotti, A. Ottolenghi *Cytokines' cascades after low dose gamma irradiation* Third MELODI Workshop Rome, 2 - 4 November 2011
- 2012**
- [407] G. Babini, D. Cappelletti, L. Mariotti, J. Morini, A. Ottolenghi *Perturbation of intercellular signalling: modeling approaches and characterization of the experimental system"*, Second contractors meeting EpiRadBio, Sevilla (Spain), 9-11 January 2012
- [408] A. Ottolenghi, D. Alloni, G. Babini, D. Cappelletti, L. Mariotti, J. Morini, D. Scannicchio, V. Smyth, K. R. Trott, *Initial radiation damage events (the track structure approach)"*, ANDANTE Kickff meeting, Pavia (Italy), 25-26 January 2012
- [409] A Ottolenghi. V Smyth and K Trott. *Dosimetry for second cancer risk: the Euratom projects ALLEGRO and ANDANTE*. EURADOS Annual Meeting 2012- AM2012, IAEA, Vienna, 6-10 February 2012
- [410] A. Ottolenghi, V. Smyth, K. Trott. *ALLEGRO, Early and late health risks to normal/healthy tissues from the use of existing and emerging techniques for radiation therapy and ANDANTE, Multidisciplinary evaluation of the cancer risk from neutrons relative to photons using stem cells and the induction of second malignant neoplasms following paediatric radiation therapy*. Giornata informativa nazionale nell'ambito del programma EURATOM – presentazione del bando FP7-Fission- 2012, Roma. 17 febbraio 2012
- [411] A. Ottolenghi, V. Smyth, K. Trott, *The ANDANTE project: refining risk estimates from neutrons*. ESTRO 31, Barcelona, Spain, 9-13 May, 2012, Radiotherapy & Oncology, vol 103/S1 p. S220, ISSN: 0167-8140.
- [412] K. Trott, G. Hildebrandt, A. Ottolenghi, V. Smyth, *The risk of second cancers following proton therapy*. ESTRO 31, Barcelona, Spain, 9-13 May, 2012, Radiotherapy & Oncology, vol 103/S1 p. S221, ISSN: 0167-8140.
- [413] G. Babini, A. Ottolenghi, D. Alloni, L. Mariotti, D. Cappelletti, J. Morini, F. Lisciandro, L. DErcole. *The effect of ionizing radiations exposure on the inflammatory response: the example of the NF-kB pathway*. 39th COSPAR Scientific Assembly, Mysore, India, 14-22 July 2012.
- [414] L. Mariotti, A. Ottolenghi, G. Pirovano, G. Schettino, K. Prise. *DNA damage and repair induction after fractionated radiation exposures through  $\gamma$ -H2AX scoring: experiments and models*. 39th COSPAR Scientific Assembly, Mysore, India, 14-22 July 2012.
- [415] A. Ottolenghi. *Introduction to session F2.2 "Space Radiation Risk Assessment and Counter Measures: Physics and Biophysical Mechanisms, Modeling and Simulation"*. 39th COSPAR Scientific Assembly, Mysore, India, 14-22 July 2012.
- [416] L. Mariotti, A. Bertolotti, E. Ranza, A. Ottolenghi. *Trying to unravel the bystander effects puzzle: a systematic study of cytokine pathways under different radiation exposures*. RRS (Radiation Research Society) Meeting - Puerto Rico, September 30 - October 3, 2012.
- [417] G. Babini, D. Alloni, D. Cappelletti, L. Mariotti, J. Morini, A. Ottolenghi. *Evaluation of the NF-kB pathway dynamics after exposure to gamma radiation*, European Radiation Research 2012, Vietri sul Mare, Italy, 15-19 October 2012.
- [418] A. Ottolenghi, V. Smyth, K. Trott. *ALLEGRO to ANDANTE: An application of radiotherapy data to low-dose radiation research*. 4th International MELODI Workshop, 12-14 September 2012 Helsinki, Finland
- [419] Babini G, Cappelletti D, Morini J, Alloni D, Mariotti L, Ottolenghi A. *The complex dynamics of proteic signaling after different stimuli: an example of response after ionizing radiation*. WE-Heraeus Physics School on "Ionising Radiation and Protection of Man", Bad Honnef (Germany), 10-19 August 2012.
- [420] A. Ottolenghi, Vere S., *introduction to the Forum*, DoReMi/MELODI Training & Education Forum 11 September 2012 Helsinki, Finland



- [421] L. Mariotti, A Bertolotti, E Ranza, G. Babini, D. Cappelletti, J Morini, A. Ottolenghi. *Modelling and experiments to study radiation-perturbed signalling pathways*. 5th International Systems Radiation Biology Workshop, Oxford, 2-5 September 2012.
- [422] L. Mariotti Babini G, Cappelletti D, Morini J, Ottolenghi A. *Perturbation of intercellular signalling: modelling approaches and characterization of the experimental system*. EpiRadBio 3rd meeting, Eze, 10/10/2012
- 2013**
- [423] M. Hauptmann, S. Haghdoost, H. Sarioglu, A. Guertler, S. Hornhardt, U. Roessler, U. Kulka, G. Babini, A. Ottolenghi, M. Harms-Ringdahl, K. Unger, M. Gomolka, *Differential response of the proteome induced by exposure to low-dose ionizing radiation (IR) using different dose rates and doses in human fibroblast cells*, 2nd International Radiation Proteomics Workshop, Munchen (Germany), 30-31 January 2013
- [424] L. Mariotti, A. Bertolotti, E. Ranza, G. Babini, A. Ottolenghi *Influence of oxidative stress and different radiation quality exposure on cytokine release*, DoReMi 2nd Periodic Meeting, Institut Curie, Paris (France), 22-24 January 2013
- [425] G. Babini, K. Unger, M. Hauptmann, S. Haghdoost, H. Sarioglu, A. Guertler, U. Roessler, U. Kulka, M. Kulka, M. Harms-Ringdahl, S. Hornhardt, M. Gomolka, A. Ottolenghi *Pathway analysis techniques to study proteomic data from low dose/low-dose-rate irradiated cells*, DoReMi 2nd Periodic Meeting, Institut Curie, Paris (France), 22-24 January 2013
- [426] A. Ottolenghi, V. Smyth, K. Trott, *ANDANTE: The project: a multidisciplinary approach to neutron RBE*. 2nd ESTRO Forum, Geneva, Switzerland from 19-23 April 2013. published in *Radiotherapy & Oncology*, 106, S2 p.88 [http://www.estro-events.org/ESTROevents/Documents/FORUM\\_abstract\\_bookPRESS\\_lowres.pdf](http://www.estro-events.org/ESTROevents/Documents/FORUM_abstract_bookPRESS_lowres.pdf)
- [427] A. Ottolenghi, K-R. Trott, V.G.Smyth. *Support and integration of education and training on low dose radiation research in europe*, ETRAP 2013, 12 - 15 March 2013, Vienna, Austria
- [428] A Ottolenghi, P. O'Neill, *Welcome and introduction DoReMi Radiation Quality workshop*, SCK-CEN Headquarters, Brussels. 9-10 July 2013
- [429] Ottolenghi A, Alloni D, Babini G, Baiocco G., Mariotti L. *From early events to biological damage: the radiation quality issue*. Italian Physics Society Meeting, 2013, Trieste
- [430] V. E. Bellinzona, G. Babini, L. Mariotti, J. Morini, D. Cappelletti, K. Unger, A. Ottolenghi. *Radiation induced modulation of gene expression profiles in co-culture conditions* Italian Physics Society Meeting, 2013, Trieste
- [431] M. Ugolini, G. Babini, G. Baiocco, D. Cappelletti, L. Mariotti, J. Morini, A. Ottolenghi *Perturbation of intra- and extra-cellular signaling cascades by ionizing radiation and environmental stress*. Italian Physics Society Meeting, 2013, Trieste
- [432] Babini, V. E. Bellinzona, L. Mariotti, J. Morini, D. Cappelletti, P. Tabarelli, M. Liotta, K. Unger, A. Ottolenghi. *Study of the mechanisms underpinning the intercellular induction of apoptosis in a co-culture experiment*. V annual Epiradbio Meeting, 26-29 June 2013, Alghero
- [433] Mark Hill, Alanna Maguire, Danielle Liddle, Peter O'Neill L. Mariotti, Andrea Ottolenghi *Stimulation of intercellular induction of apoptosis in transformed cells at very low doses: the importance of radiation quality and cell type*. V annual Epiradbio Meeting, 26-29 June 2013, Alghero
- [434] G Babini, V. E. Bellinzona, L Mariotti, j. Morini, d. Cappelletti, p. Tabarelli, m. Liotta, k. Unger, a. Ottolenghi. *Study of extra- and intra- cellular effects of low dose irradiation in a co-culture setup*. 40th European Radiation Research Society Meeting. 1st - 5th September 2013, Dublin
- [435] Morini J., Ugolini M., Babini G, Cappelletti D., Mariotti L., Maccario C., Liotta M., Tabarelli P., Minelli A., Savio M, Ottolenghi A, Danesino C. *Effect of X-rays on DNA repair pathways in lymphoblastoid cell lines derived from Shwachman-Diamond Syndrome patients*. 40th European Radiation Research Society Meeting. 1st 5 th September 2013
- [436] L. Mariotti, A. Abdelrazek, D. Liddle, M. Hill, A. Ottolenghi, P. O'Neill *Spatial and temporal features of signalling-mediated apoptosis*. 59 Radiation Research Society Annual Meeting, 15-19 September 2013, New Orleans LA, US
- [437] L. Mariotti, B. Vojnovic, A. Ottolenghi, P. O'Neill, M.A. Hill *Stimulation of intercellular induction of apoptosis in transformed cells at very low doses: investigating the kinetics using real time imaging*. 59 Radiation Research Society Annual Meeting, 14 September 2013, New Orleans LA, US
- [438] A. Ottolenghi, V. Smyth, *Summary of the Radiation quality workshop*, DoReMi Cross cutting meeting 7 October 2013, Brussels [http://www.doremi-noe.net/doremi\\_radiation\\_quality\\_workshop\\_2013.html](http://www.doremi-noe.net/doremi_radiation_quality_workshop_2013.html)
- [439] V. Smyth, K. Trott, A. Ottolenghi, *Introduction to the MELODI Education and Training Forum Part 1* Fifth International MELODI Workshop, October 7-10 2013, Brussels [http://www.melodi-online.eu/doc/Smyth\\_Melodi%202013%20Forum%20intro%20and%20Theme%201.pdf](http://www.melodi-online.eu/doc/Smyth_Melodi%202013%20Forum%20intro%20and%20Theme%201.pdf)
- [440] V. Smyth, A. Ottolenghi, K. Trott, *Introduction to the MELODI Education and Training Forum Part 2: survival in a changing environment* Fifth International MELODI Workshop, October 7-10 2013, Brussels [http://www.melodi-online.eu/doc/Smyth\\_Survival%20in%20a%20changing%20environment.pdf](http://www.melodi-online.eu/doc/Smyth_Survival%20in%20a%20changing%20environment.pdf)

- [441] A Ottolenghi, K. Trott, V. Smyth *Education and Training in DoReMi, MELODI and OPERRA*, Fifth International MELODI Workshop, October 7-10 2013, Brussels <http://www.melodi-online.eu/doc/OttolenghiET%20in%20DoReMi%20MELODI%20and%20OPERRA.pdf>
- [442] A Ottolenghi, K. Trott, G. Baiocco, V. Smyth, *The ANDANTE project: a multidisciplinary approach to neutron RBE*, Fifth International MELODI Workshop, October 7-10 2013, Brussels [http://www.melodi-online.eu/doc/Ottolenghi\\_The%20ANDANTE%20Project.pdf](http://www.melodi-online.eu/doc/Ottolenghi_The%20ANDANTE%20Project.pdf)
- [443] V. Smyth, K. Trott, A. Ottolenghi, *Short courses on research into radiobiological effects of exposure to low doses of ionising radiation*, Fifth International MELODI Workshop, October 7-10 2013, Brussels
- [444] G Baiocco, D Alloni G, Babini, L Mariotti, A Ottolenghi. *Reaction mechanism interplay in determining the biological effectiveness of neutrons as a function of energy*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 52
- [445] L. Mariotti, A Ottolenghi, P O'Neill, M Hill. *Stimulation of intercellular induction of apoptosis in transformed cells at very low doses: spatial and temporal features* MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 27
- [446] J Morini, G Babini, M Ferrari, C Maccario, L. Mariotti A, Minelli Monica Savio Anne Guertler Ulrike Kulka Ute Roessler Andrea Ottolenghi Cesare Danesino. *Radiosensitivity and dna damage repair in IIMmphoblastoid cell lines derived from shwachman-diamond syndrome patients*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 56
- [447] G Babini, V E Bellinzona, J. Morini, L. Mariotti, K Unger, A Ottolenghi. *Study of the mechanisms underpinning the intercellular induction of apoptosis in a co-culture experiment*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 67
- [448] G Babini, M Ugolini, J Morini, G Baiocco, L. Mariotti, P. Tabarelli, M. Liotta, A Ottolenghi. *Investigation of radiation-induced multilayered signaling response of the inflammatory pathway*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 23
- [449] D. Alloni, A. Salvini, M. Prata, A. Ottolenghi, *Neutron flux characterization of the Pavia TRIGA Mark II reactor for radiobiological and microdosimetric applications*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 53
- [450] D. Alloni, G. Baiocco, G. Babini, W. Friedland, L. Mariotti, A. Ottolenghi, *Energy dependence of carbon ions induced DNA damage complexity* MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 50
- [451] E. Schmitt, W. Friedland, P. Kundrat, M. Dingfelder, A. Ottolenghi, *Track-structure modelling for low-energy light ions in PARTRAC*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 59
- [452] A. Ottolenghi, G. Baiocco, V. Smyth, K. Trott *The ANDANTE project: a multidisciplinary approach to neutron RBE*. MICROS 2013 - 16th International Symposium on Microdosimetry, 20-25 October 2013, Treviso, Italy, Book of abstracts p. 43
- [453] A. Ottolenghi, K. Trott, V. Smyth, *Education and Training in the DoReMi project*, EUTEMPE-RX kick-off meeting, Leuven, Belgium, 1-2 October 2013
- [454] G. Babini, L.G. Mariotti, A. Ottolenghi, *An integrated experimental/theoretical approach to try to unravel the complex non-linear dynamics of the inflammatory pathway*, DoReMi workshop on "Low dose radiation effects on the immune system: current knowledge and future perspectives", Budapest, Hungary November 5-7, 2013
- 2014**
- [455] V. Smyth, A. Ottolenghi, K. Trott *MELODI Working Group on Education and Training* 5th MELODI Board of Directors Paris, 10th of February, 2014
- [456] A. Ottolenghi *Radiobiology and Hadrontherapy*, Le frontiere della medicina tra futuro e attualità: i risvolti della ricerca nella pratica clinica, Collegio Ghislieri, 31 marzo 2014
- [457] A. Ottolenghi, V. Smyth, K. Trott, On behalf of the ANDANTE Consortium, *The ANDANTE project: progress towards a re-evaluation of the risk from scattered neutrons during proton therapy*. ESTRO 33, Vienna, Austria, 04-08 April, 2014, Radiotherapy & Oncology, Vol 111/1, p 55
- [458] D. Alloni, G. Babini, G. Baiocco, L. Mariotti, J. Morini, A. Ottolenghi, W. Friedland, P. Kundrat, E. Schmitt, S. Tapio, A. Sriharshan, Z. Barjaktarovic, M. Aichler, M. Tschöp *Track structures and initial events: an integrated approach to assess the issue of radiation quality dependence* DoReMi Periodical Meeting, Munich, July 2014
- [459] L. Mariotti, Babini, J. Morini, G Baiocco, D Alloni G, A Ottolenghi. *Non linear processes modulated by low doses of radiation exposure*. 40th COSPAR Scientific Assembly, Moscow, Russia, August 2014.
- [460] A. Ottolenghi, T. Hei, F. Cucinotta, M. Durante, G. Reitz, *Round table on the roadmap for future space radiation research*, 40th COSPAR Scientific Assembly, Moscow, Russia, August 2014.
- [461] K Trott, V Smyth, A Ottolenghi *How to optimize exposures using radiobiology as a guide* Physica Medica: 8th European Conference on Medical Physics (ECMP2014), Athens, Greece, September 11th-13th, 2014, in European Journal of Medical Physics 30, e6 (2014)

- [462] Friedland Werner, Kunderát Pavel, Schmitt Elke, Ottolenghi Andrea *Track structure and DNA damage simulation for light ion energies around the bragg peak* 41st Annual Meeting of the European Radiation Research Society ERR2014, Rhodes, Greece, September 14-19, Abstract Book p. 152 , 2014
- [463] Babini G., Mariotti L., Siragusa M., Morini J., Baiocco G., Liotta M., Tabarelli de Fatis P., Ottolenghi A. *May the inflammatory response be considered as an example of non DNA-damage driven system?* 41st Annual Meeting of the European Radiation Research Society ERR2014, Rhodes, Greece, September 14-19, Abstract Book p. 168 , 2014
- [464] Morini J, Babini G, Mariotti LG, Baiocco G, Nacci L, Maccario C, Liotta M, Tabarelli de Fatis P, Minelli A, Savio M, Ottolenghi, Danesino C *Effect of ionizing radiation exposure on proliferation and cell cycle distribution in cells derived from shwachman-diamond syndrome affected patients* 41st Annual Meeting of the European Radiation Research Society ERR2014, Rhodes, Greece, September 14-19, Abstract Book p. 185 , 2014
- [465] Schmitt E., Friedland W., Kunderát P., Ottolenghi A. *Modelling initial radiation-induced damage to mitochondrial DNA by PARTRAC* 41st Annual Meeting of the European Radiation Research Society ERR2014, Rhodes, Greece, September 14-19, Abstract Book p. 278 , 2014
- [466] A. Ottolenghi, Vere Smyth, K. Trott *Education & Training in MELODI* 6th International MELODI Workshop, PRBB – Barcelona (Spain), 7-9 October 2014
- [467] G. Baiocco, D. Alloni, G. Babini, L. G. Mariotti, J. Morini, E. Schmitt, P. Kunderat, W. Friedland, A. Ottolenghi, *Tracing back the physical origin of neutron biological effectiveness*, 6th International MELODI Workshop, PRBB – Barcelona (Spain), 7-9 October 2014
- [468] J. Morini, G. Babini, G. Baiocco, L. Nacci, C. Maccario, M. Liotta, P. Tabarelli de Fatis, A. Minelli, M. Savio, A. Ottolenghi, C. Danesino, *Effetto dell'esposizione a raggi X sulla proliferazione e sul ciclo cellulare in cellule linfoblastoidi derivate da pazienti affetti da sindrome di Shwachman-Diamond* XVI Convegno Nazionale della Società Italiana per le Ricerche sulle Radiazioni (SIRR) Pavia, 7-8 novembre 2014
- [469] G. Babini, J. Morini, L. Mariotti, M. Siragusa, G. Baiocco, M. Liotta, P. Tabarelli de Fatis, A. Ottolenghi *Studio in vitro della perturbazione indotta dalla radiazione sulla risposta infiammatoria* XVI Convegno Nazionale della Società Italiana per le Ricerche sulle Radiazioni (SIRR) Pavia, 7-8 novembre 2014
- [470] G. Baiocco, D. Alloni, G. Babini, L. G. Mariotti, J. Morini, E. Schmitt, P. Kunderat, W. Friedland, A. Ottolenghi *Caratterizzazione dell'origine fisica dell'efficacia biologica dei neutroni* XVI Convegno Nazionale della Società Italiana per le Ricerche sulle Radiazioni (SIRR) Pavia, 7-8 novembre 2014
- [471] A. Ottolenghi, D. Alloni, G. Babini, G. Baiocco, J. Morini, V. Smyth, K. Trott *Early events, radiation quality and dose. The experience of the ANDANTE project*, TC-IR Ionizing Radiation EURAMET Technical Committee, Oslo, Norway, 29-30 October 2014
- [472] A. Ottolenghi, E. Giulotto, V. Smyth, K. Trott *Is there a role for universities in future radiation protection research programs?* Meeting with representatives from universities with the aim to make recommendations on how to make full use of the universities research potential for radiation risk research. Rånäs slott, Sweden: December 2014

## **2015**

- [473] A Ottolenghi, V Smyth, K Trott *MELODI E&T WP progress report MELODI BoM*, Brussels, 17 March 2015
- [474] G. Babini, J. Morini, G. Baiocco, L. Mariotti, A. Ottolenghi *UniPv Contribution to WP2.3 - WP2.3 Interactions of transformed and healthy cells: Pro- and anti-carcinogenic effects*, EpiRadBio, Final contractors meeting, Regensburg, 24<sup>th</sup> March 2015
- [475] A Ottolenghi, G Baiocco, O Nuta, Klaus Trott, V Smyth. *The EUTEMPE course on Radiation Biology for Medical Physicists. 4th EUTEMPE-RX meeting*, Leuven, March 19 – 20, 2015
- [476] G Babini ,D Alloni , G Baiocco, J Morini, A Ottolenghi *How can we translate the in vitro results into the in vivo scenario? Modelling bystander effects for Biomedical and Environmental Research* Stirling, Scotland, April 2015
- [477] A Ottolenghi, D. Alloni, G Babini, G Baiocco, J Morini, D Scannicchio, V Smyth, *Research on radiation quality and hadrontherapy. Seminar on research activities in hadrontherapy*, April 29th, 2015, CNAO, Pavia
- [478] G Babini A Ottolenghi UniPv contribution to the SOPRANO project, SOPRANO Kickoff meeting, Thessaloniki, May 2015.
- [479] A. Ottolenghi, V. Smyth, K. Trott *DoReMi- Low Dose Research towards Multidisciplinary Integration: Education and Training actions* 15th International Congress of Radiation Research (ICRR 2015) Kyoto, Japan, 25-29 May, 2015.
- [480] Babini G, Morini J, Baiocco G, Ottolenghi *A Radiation-induced inflammatory response in in vitro fibroblasts is overshadowed by their response to culturing conditions* 15th International Congress of Radiation Research (ICRR 2015) Kyoto, Japan, 25-29 May, 2015.

- [481] G Baiocco, D Alloni, G Babini, J Morini, E Schmitt, P Kundrat, W Friedland, A Ottolenghi. *A comprehensive modeling approach to shed light on the physical origin of neutron biological effectiveness*. 15th International Congress of Radiation Research (ICRR 2015) Kyoto, Japan, 25-29 May, 2015.
- [482] S Salomaa, D Averbeck, A Ottolenghi, L Sabatier, S Bouffler, M Atkinson, J R Jourdain *Introduction to the European DoReMi programme on low dose risk research* 15th International Congress of Radiation Research (ICRR 2015) Kyoto, Japan, 25-29 May, 2015.
- [483] M. Vuolo, G. Baiocco, M. Giraud, C. Lobascio, A. Ottolenghi. *The PERSEO project ("PERSONAL Radiation Shielding for interplanetary missions"): status and perspectives*. 20th Humans in Space Symposium (HIS), Prague, Czech Republic, June 29 - July 3, 2015.
- [484] A. Ottolenghi et al, 'Heterogeneous learning': participants come with different background and experience (examples, questions, few answers, more questions and stimuli for discussion), Mid-term open workshop of the EUTEMPE-RX project, Sofia, Bulgaria September 25, 2015
- [485] A. Ottolenghi, G. Baiocco, M. Siragusa, D. Alloni, G. Babini, S. Barbieri, J. Morini, *Proposal for an organisation of the task on "dosimetry", including track structure and links with radiobiology* Crosscutting support to improved knowledge on tritium management in Fission&Fusion facilities. International Workshop: Bruxelles, 8-9 October 2015.
- [486] A. Ottolenghi, G. Baiocco, V. Smyth, K. Trott, K. Manda, N. Hosper, R. Schulte, U. Schneider, L. Walsh, et al. *The ANDANTE Project (Multidisciplinary evaluation of the cancer risk from neutrons relative to photons using stem cells and the induction of second malignant neoplasms following paediatric radiation therapy)*. MELODI 7th Workshop, Next Generation Radiation Protection Research, Munich, 9 – 11 November 2015
- [487] G. Babini, J. Morini, G. Baiocco, A. Ottolenghi. *Radiation-induced inflammatory pathway may be biased or covered by culturing procedures in in vitro models*. MELODI 7th Workshop, Next Generation Radiation Protection Research, Munich, 9 – 11 November 2015
- [488] J. Morini, G. Babini, F. Barbaro, A. Solari, G. Baiocco, M. Liotta, P. Tabarelli de Fatis, D. Alloni, R. Chignola, E. Milotti, A. Ottolenghi. *Radiation-induced perturbations in an in vitro epithelial layer of CaCo-2 cells co-cultured with human PBMC*. MELODI 7th Workshop, Next Generation Radiation Protection Research, Munich, 9 – 11 November 2015
- [489] A Ottolenghi, D. Alloni, G Babini, G Baiocco, J Morini, D Scannicchio, V Smyth, *Research on radiation quality and hadron therapy: where are we? What is to be done? Technical Meeting (TM), Radiobiology of Charged Particle Therapy (RBPT)* IAEA Headquarters, VIC, Vienna, Austria 11 – 13 November 2015.
- [490] A. Ottolenghi, D. Alloni, G. Babini, G. Baiocco, L. Mariotti, J. Morini, V. Smyth, W. Friedland, P. Kundrat, E. Schmitt, S. Tapio, A. Sriharshan, Z. Barjaktarovic, M. Aichler, M. Tschöp. *DoReMi research on Mitochondria - The INITIUM project (Track structures and initial events: an integrated approach to assess the issue of radiation quality dependence)*, DoReMi workshop "Mitochondria and Radiation" Munich, 14 – 15 December 2015.
- [491] W. Friedland, P. Kundrát, E. Schmitt, G. Baiocco, S. Barbieri, D. Alloni, A. Ottolenghi *TREND - TRacking damage at ion track ENDS - Task 5.6 ad-hoc extension* Final DoReMi meeting, December 2015, Budapest, Hungary
- [492] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, W. Friedland, P. Kundrát, E. Schmitt, M. Puchalska, L. Sihver, A. Ottolenghi *Neutron biological effectiveness as a function of energy with transport and track structure calculations* Final DoReMi meeting, December 2015, Budapest, Hungary
- 2016**
- [493] A. Ottolenghi *European Joint Programme for the Integration of Radiation Protection Research (CONCERT): presentazione e opportunità di finanziamento* Euratom: Giornata Nazionale di Lancio dei Bandi 2016-17 in Horizon 2020, ENEA Roma, 18 febbraio 2016 [http://www.apre.it/media/327619/ottolenghi\\_apre\\_2016.pdf](http://www.apre.it/media/327619/ottolenghi_apre_2016.pdf)
- [494] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, W. Friedland, P. Kundrát, E. Schmitt, M. Puchalska, L. Sihver, A. Ottolenghi *Neutron induced DNA damage using transport and track structure calculations* EURADOS Annual Meeting - AM2016, February 2016, Milan, Italy
- [495] M. Siragusa, G. Baiocco, P. Fredericia, T. Groesser, M. Jensen, A. Ottolenghi *An analytical approach to calculate local energy deposition at the sub-cellular level* EURADOS Annual Meeting - AM2016, February 2016, Milan, Italy
- [496] J. Morini, G. Babini, L. Nacci, C. Maccario, A. Minelli, M. Savio, A. Guertler, U. Rößler, M. Gomolka, U. Kulka, A. Ottolenghi, C. Danesino. *Radiosensitivity and DNA damage repair in lymphoblastoid cell lines derived from Shwachman-Diamond syndrome patients*. 8th International Congress on Shwachman-Diamond Syndrome, Verona (Italy), 17-20 April 2016.
- [497] J. Morini, G. Babini, L. Nacci, G. Baiocco, A. Minelli, M. Savio, A. Ottolenghi, C. Danesino. *Proliferation and cell cycle modifications in lymphoblastoid cell lines from SDS patients after X-ray exposure*. 8th International Congress on Shwachman-Diamond Syndrome, Verona (Italy), 17-20 April 2016.

- [498] R Schulte, SD Clarke, E Pryser, BM Wieger, M Norsworthy, SA Pozzi, R Halg, A Lomax, V Smyth, A Ottolenghi. *A system for measuring and calculating neutron doses in paediatric proton patients* ESTRO 35, 29 April-03 May, 2016, Turin, Italy, in Radiotherapy and Oncology 119, S395-S396 (2016)
- [499] G. Baiocco, V. Smyth, K. Trott, A. Ottolenghi *The ANDANTE Project: a multidisciplinary evaluation of the risk from neutrons relative to photons Panel discussion: Challenges in Low Dose Radiation research* 14th Congress of the International Radiation Protection Association - IRPA14, May 2016, Cape Town, SA
- [500] A Ottolenghi, V Smyth, K Trott. *The ANDANTE project: a re-evaluation of the risk from scattered neutrons during proton therapy* ESTRO 35, 29 April-03 May, 2016, Turin, Italy, in Radiotherapy and Oncology 119, S964 (2016)
- [501] A. Ottolenghi, G. Babini, G. Baiocco, S. Barbieri, J. Morini *Space radiation risk and counter-measures for human exploration*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [502] A. Ottolenghi, V. Smyth, K Trott, *Education and Training for radiation protection research in Europe*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [503] E. Schmitt, W. Friedland, P. Kunderat, M. Dingfelder, G. Baiocco, A. Ottolenghi, *Track structure based modelling of light ion radiation effects on nuclear and mitochondrial DNA*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [504] G. Babini, G. Baiocco, J. Morini, S. Haghdoost, R. Yentrapalli, A. Aerts, T. Ebrahimian, S. Tapio, R. Benotmane, M. Harms-Ringdahl, A. Ottolenghi *A systems radiation biology approach to unravel the mechanisms underpinning the induction of premature senescence in endothelial cells after chronic low-dose-rate irradiation*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [505] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, W. Friedland, P. Kunderat, E. Schmitt, M. Puchalska, L. Sihver, A. Ottolenghi, *Physical bases of neutrons radiobiological effectiveness*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [506] S. Barbieri, G. Baiocco, M. Giraud, V. Guarnieri, I. Locantore, C. Lobascio, E. Brussolo, M. Funghi, D. Giacosa, S. Steffenino, L. Meucci, R. Barresi, M. Benassai, M. Vuolo, M. Crisconio, A. Ottolenghi, *The PERSEO project: a personal radiation shielding system for interplanetary missions*, 41st COSPAR Scientific Assembly, to be held in Istanbul, Turkey 30 July - 7 August 2016.
- [507] G. Babini, J. Morini, G. Baiocco, M. Liotta, P. Tabarelli de Fatis, D. Alloni, R. Chignola, E. Milotti, A. Ottolenghi *Measurements of radiation-perturbed intra- and extra- cellular signalling cascades in CaCo-2 cells co-cultured with PBMCs* 42nd Annual Meeting of the European Radiation Research Society - ERR2016 - 4-8 September 2016, Amsterdam, Netherlands
- [508] P. Giardullo, B. Tanno, G. Babini, S. Leonardi, I. De Stefano, E. Pasquali, A. Ottolenghi, C. Marino, A. Saran and M. Mancuso, *I miRNA come biomarcatori di esposizione alle radiazioni*, XVII Convegno Nazionale SIRR 2016, Trento (Italy) 25-27 September 2016
- [509] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, W. Friedland, P. Kunderat, E. Schmitt, M. Puchalska, L. Sihver, A. Ottolenghi *An ab-initio approach to trace back the physical origin of neutron biological effectiveness as a function of energy* Radiation Protection Week, September 2016, Oxford, UK
- [510] G. Babini and A. Ottolenghi, *Report on bioinformatic analysis and mathematical modelling within the SOPRANO project*, SOPRANO final meeting, Madrid (Spain), 17-18 October 2016
- [511] P. Giardullo, B. Tanno, G. Babini, S. Leonardi, I. De Stefano, E. Pasquali, A. Ottolenghi, C. Marino, A. Saran and M. Mancuso, *I miRNA come biomarcatori di esposizione alle radiazioni*, XVII Convegno Nazionale SIRR 2016, Trento (Italy) 25-27 September 2016
- [512] M. Siragusa, G. Baiocco, P. Fredericia, T. Groesser, M. Jensen, A. Ottolenghi *COOLER: a tool to calculate local energy deposition at the sub-cellular level* 2016 RRS Annual Meeting , October 2016, Waikoloa, Hawaii, US
- [513] W. Friedland, E. Schmitt, P. Kunderat, A. Ottolenghi, G. Baiocco, S. Barbieri, D. Alloni, M. Dingfelder *Modelling DNA damage at light ions' track ends* 2016 RRS Annual Meeting , October 2016, Waikoloa, Hawaii, US
- [514] W. Friedland, P. Kunderat, E. Schmitt, A. Ottolenghi, G. Baiocco, M. Dingfelder, B. Brzozowska, A. Wojcik *Late effects due to low doses of different radiation quality – what can we learn from track structure calculations?* 2016 RRS Annual Meeting , October 2016, Waikoloa, Hawaii, US
- 2017**
- [515] G. Baiocco, M. Vuolo, L. Bocchini, M. Giraud, C. Lobascio, T. Gheysens, A. Ottolenghi *Radiation protection for astronauts in case of solar particle events* EURADOS Annual Meeting - AM2017, February 2017, Karlsruhe, Germany
- [516] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, E. Schmitt, P. Kunderat, W. Friedland, M. Puchalska, U. Giesen, R. Nolte, A. Ottolenghi *At the Physics-Biology Interface: the Neutron Affair* Neutron and Ion Dosimetry Symposium NEUDOS13, May 2017, Kraków, Poland
- [517] G. Baiocco, S. Barbieri, A. Ottolenghi, L. Bocchini, M. Giraud, C. Lobascio, I. Locantore, E. Brussolo, D. Giacosa, L. Meucci, S. Steffenino, A. Ballario, B. Barresi, R. Barresi, M. Benassai, L. Ravagnolo, L. Narici, A.

- Rizzo, E.Carrubba,, F.Carubia, G.Neri, M.Crisconio, S.Piccirillo, G.Valentini, M.Giacci, S. Barbero *The PERSEO Project: PErsonal Radiation Shielding for intErplanetary missiOns* Workshops on Radiation Monitoring for the International Space Station, September 2017, Torino, Italy
- [518] G. Baiocco, S. Barbieri, G. Babini, J. Morini, D. Alloni, E. Schmitt, P. Kunderát, W. Friedland, M. Puchalska, U.Giesen, R. Nolte, A. Ottolenghi *At the Physics-Biology Interface: the Neutron Affair* Neutron and Ion Dosimetry Symposium NEUDOS13, May 2017, Kraków, Poland
- [519] G. Baiocco, M. Vuolo, L.Bocchini, M. Girauo, C. Lobascio, T. Gheysens, A. Ottolenghi *Radiation protection for astronauts in case of solar particle events* EURADOS Annual Meeting - AM2017, February 2017, Karlsruhe, Germany
- [520] A. Ottolenghi, G. Babini, G. Baiocco, S. Barbieri, J. Morini, *From track structure to systems biology: "How many roads must a man walk down ..."*, ERRS and GBS 2017, Essen (Germany), 17-21 September 2017
- [521] S. Barbieri, G. Babini, G. Baiocco, J. Morini, W. Friedland, M. Buonanno, D.J. Brenner, A. Ottolenghi, *Track-structure simulation of g-H2AX foci and comparison with experimental results: unravelling the role of radiation quality*, ERRS and GBS 2017, Essen (Germany), 17-21 September 2017
- [522] G. Babini, , B. Tanno, I. De Stefano, P. Giardullo, E. Pasquali, G. Baiocco, A. Ottolenghi, M. Mancuso. *Perturbed temporal dynamics of mirnome profiles of endothelial cells irradiated with low doses of gamma-rays*, Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017
- [523] J. Morini, G. Babini, G.Baiocco, S. Barbieri, M. Ciocca, G.B. Ivaldi, M. Liotta, S. Molinelli, P. Tabarelli De Fatis, A. Ottolenghi *A comparison between x-rays and carbon ions irradiation in human neural stem cells*, Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017
- [524] S. Barbieri, G. Babini, G. Baiocco, J. Morini, W. Friedland, M. Buonanno, D.J. Brenner, A. Ottolenghi. *Mechanistic study of low- and high-let radiation induced DNA damages: benchmarking Monte Carlo simulations with experimental results*, Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017
- [525] A. Ottolenghi, G. Babini, G. Baiocco, S. Barbieri, J. Morini. *What roles for track structure and microdosimetry in the era of omics, systems biology and holistic approaches?* Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017
- [526] G. Baiocco, S. Barbieri, L. Bocchini, M. Girauo, C. Lobascio, A. Ottolenghi. *Innovative solutions for personal radiation shielding in space: the PERSEO project*, Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017
- [527] A. Ottolenghi, K. Trott, G. Baiocco, V. Smyth. *Education and training to support basic radiation physics and radiobiology*, Micros 2017 - 17th International Symposium on Microdosimetry, to be held in Venice, November 2017

September 2017

Andrea Ottolenghi