Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Pinto, Massimo**
Address(es)	Via Gennaro Cassiani, 10 00155 Rome Italy
Telephone(s)	+39 06 3048 4662 Mobile: +39 329 8383 529
Email(s)	massimo.pinto@enea.it
Nationality(-ies)	Italian
Date of birth	July 9, 1973
Gender	Male

Current Position

Since 2010	Research Scientist, Dosimetry Division, Italian National Institute of Ionizing Radiation Metrology

Post-Doctoral Research Experience

2006–2010	Ionising Radiation and Biophysics and Biomedical Physics Unit, Istituto Superiore di Sanità, Rome, Italy. Project: Background low dose rate ionizing radiation and its potential adaptive behaviour in the human lymphoblastoid line TK6. Funded by Museo Storico della Fisica e Centro Studi e Ricerche Enrico Fermi. Principal Investigators: *Luigi Satta* and *Mauro Belli*
2003–2006	Radiation Research Division, UMDNJ, New Jersey Medical School, NJ, USA. Project: Radiation-induced bystander effects and their adaptive behaviour in three dimensional in vitro human culture models labelled with radiopharmaceuticals. Principal Investigator: *Roger W. Howell*
2002–2003	Biophysics Department, Faculty of Sciences, University of Naples Federico II, Naples, Italy. Project: Murine cell survival after exposure to accelerated Lithium ions. Principal Investigator: *Giancarlo Gialanella*

Education

1998 – 2002 Ph.D.	Cell and Molecular Biophysics, Gray Cancer Institute and Oncology Department, University College London, UK. Ph.D. in radiation-induced DNA damage and repair. Advisers: *Kevin M. Prise* (GCI), *Barry D. Michael* (GCI), and *John Hartley* (UCL). Thesis title: "Induction and rejoining of DNA double strand breaks in human cells after exposure to ionising radiation: an experimental and modelling approach"

1992 – 1998 B.Sc.	Faculty of Sciences, University of Naples Federico II, Naples, Italy. BSc in Physics, perfect score cum laude. Thesis Advisors: *Gianfranco Grossi* (Naples, Italy) and *Kevin Prise* (Gray Cancer Institute, UK). Thesis title: "Molecular alterations induced by sparsely ionising radiations: experimental and theoretical studies"

Highlighted International, non-EU research, teaching, and funding experience

2003-2006	Post Doctoral Research Fellow at the Radiation Research Division of the New Jersey Medical School, Newark, New Jersey, USA
2006	The Cancer Institute of New Jersey *Gallo Award* for Outstanding Cancer Research, Bystander Responses in three-dimensional cultures containing radiolabeled and unlabeled human cells, Piscataway, New Jersey, USA
2006	Assistant Lecturer, Radiation Biology module, Radiology Residence Training, New Jersey Medical School, Newar, New Jersey, USA
2004-2010	Leader of the *Radiation Research Podcast* project, USA, Europe, India
2004-2006	Winner of a Research Scholarship from the The Cancer Institute of New Jersey, New Jersey Commission for Cancer Research ($74.000), New Jersey, USA
	Winner of a supplementary Research Scholarship from the New Jersey Medical School, New Jersey, USA
2008	Invited Lecturer, Université de Sherbrooke, Sherbooke, Quebec, Canada
2008-2009	Member, Scientific Programme Committe of the Radiation Research Society 55th Annual Meeting, Savannah, Georgia, USA
2005-2006	Member, Scientific Programme Committe of the Radiation Research Society 52nd Annual Meeting, Denver, Colorado, USA

Languages

Mother tongue(s) **Italian**

Self-assessment *European level*(⋆)	**Understanding**		**Speaking**		**Writing**
	Listening	Reading	Spoken interaction	Spoken production	
English	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user
French	A2 Basic user	B1 Independent user	A2 Basic user	A2 Basic user	A2 Basic user

(⋆) *Common European Framework of Reference (CEF) level*

Major scientific publications in peer-reviewed journals: Radiation Dosimetry

2016 Ludwig Büermann, Antonio Stefano Guerra, Maria Pimpinella, Massimo Pinto, Jacco A de Pooter, Leon de Prez, Bartel Jansen, Marc Denoziere, and Benjamin Rapp, 2016, *First international comparison of primary absorbed dose to water standards in the medium-energy X-ray range.* Metrologia **53** 1A

Massimo Pinto, Maria Pimpinella, Maurizio Quini, Marco D'Arienzo, Iordana Astefanoaei, Stefano Loreti, Antonio Stefano Guerra, 2016, *A graphite calorimeter for absolute measurements of absorbed dose to water: application in medium-energy x-ray filtered beams*, Physics in Medicine and Biology **61**(4)

2015 Cecilia Kessler, Massimo Pinto, Gianluca Cappadozzi, Claudia Silvestri, Maurizio Bovi, and Maria Pia Toni, 2015 *Key comparison BIPM.RI(I)-K1 of the air-kerma standards of the ENEA-INMRI, Italy and the BIPM in 60Co gamma radiation,* Metrologia **52** (1A)

C Kessler, D T Burns, P Roger, M P Toni, M Pinto, M Bovi, G Cappadozzi, and C Silvestri, 2015, *Key comparison BIPM.RI(I)-K7 of the air-kerma standards of the ENEA-INMRI, Italy and the BIPM in mammography x-rays*, Metrologia **52** (1A)

J Farah, A Trianni, O Ciraj-Bjelac, I Clairand, C De Angelis, S Delle Canne, L Hadid, C Huet, H Jarvinen, A Negri, L Novák, M Pinto, T Siiskonen, M J Waryn, and Ž Knežević, 2015, *Characterization of XR-RV3 GafChromic® films in standard laboratory and in clinical conditions and means to evaluate uncertainties and reduce errors*, Medical Physics **42**(7)

C Patrono, O Monteiro Gil, U Giesen, F Langner, M Pinto, H Rabus and A Testa, 2015 *'BioQuaRT' project: design of a novel in situ protocol for the simultaneous visualisation of chromosomal aberrations and micronuclei after irradiation at microbeam facilities*, Radiation Protection Dosimetry **166** (1-4)

2014 D T Burns, C Kessler, M Pinto, G Cappadozzi, C Silvestri, and M P Toni, 2014, *Key comparison BIPM.RI(I)-K3 of the air-kerma standards of the ENEA, Italy and the BIPM in medium-energy x-rays*, Metrologia **51** Tech Suppl 06020

H Palmans, H Rabus, A L Belchior, M U Bug, S Galer, U Giesen, G Gonon, G Gruel, G Hilgers, D Moro, H Nettelbeck, M Pinto, A Pola, S Pszona, G Schettino, P H G Sharpe, P Teles, C Villagrasa, and J J Wilkens, 2014, *Future development of biologically relevant dosimetry*, The British Journal of Radiology **88**(1045)

2012 M P Toni, M Pimpinella, M Pinto, M Quini, G Cappadozzi, C Silvestri, and O Bottauscio, 2012, *Direct determination of the absorbed dose to water from 125I low dose-rate brachytherapy seeds using the new absorbed dose primary standard developed at ENEA-INMRI*, Metrologia **49**(5)

2011 D T Burns, C Kessler, P Roger, M P Toni, M Pinto, M Bovi, G Cappadozzi, and C Silvestri, 2011, *Key comparison BIPM.RI(I)-K2 of the air-kerma standards of the ENEA-INMRI, Italy and the BIPM in low-energy x-rays*, Metrologia **48** Tech Suppl 06010

Major scientific publications in peer-reviewed journals: Radiation Biology

2011 G. Esposito, A. Campa, M. Pinto, G. Simone, M. A. Tabocchini and M. Belli, 2011, *Adaptive Response: Modeling and Experimental Studies*, Radiation Protection Dosimetry, **143** (2-4)

2010 Massimo Pinto, Edouard I. Azzam, and Roger W. Howell, 2010, *Investigation of Adaptive Responses in Bystander Cells in 3D Cultures Containing Tritium-Labeled and Unlabeled Normal Human Fibroblasts*, Radiation Research, **174**(2)

2009 Carbone, M. C., Pinto, M., Antonelli, F., Amicarelli, F., Balata, M., Belli, M., Conti Devirgiliis, L., Ioannucci, L., Nisi, S., Sapora, O., Satta, L., Simone, G., Sorrentino and E., Tabocchini, M.A., 2009, *The Cosmic Silence Experiment: on the putative adaptive role of environmental ionizing radiation*, Radiat. and Environ Biophysics**, 48**

2008 Antonelli, F., Belli, M., Pinto, M., Sapora, O., Sorrentino, E., Simone, G., Tabocchini, M. A., Amicarelli, F., Conti De Virgiliis, L., Carbone, M. C.. Balata, M., Ioannuci, L., Nisi, S. and Satta, L. 2008, *PULEX: Influence of environment radiation background on biochemistry and biology of cultured cells and on their response to genotoxic agents,* Il Nuovo Cimento C

2007 Pinto, M and Howell, R. W. *Concomitant quantification of targeted drug delivery and biological response in individual cells*, Biotechniques Jul;**43**(1)

Howell, R. W., Neti, P. S. V., Pinto, M., Gerashchenko, B. I., Narra, V. R. and Azzam, E. I., 2007, *Challenges and Progress in Predicting Biological Responses to Incorporated Radioactivity*, Radiat Prot Dosimetry **122**, 521-27

2006 Pinto, M., Azzam, E. I. and Howell, R. W., 2006, *Bystander Responses in human 3D cultures containing radiolabeled and unlabeled cells*, Radiat Prot Dosimetry **122**

2005 Pinto, M., Prise, K. M. and Michael, B. D., 2005, *Evidence for complexity at the nanometer scale of radiation induced DNA DSB as a determinant of rejoining kinetics*, Radiation Research **164**(1)

2004 Pinto, M., Prise, K. M. and Michael, B. D., 2004, *A Monte Carlo model of DNA double-strand break clustering and rejoining kinetics for the analysis of pulsed-field gel electrophoresis data*, Radiation Research **162**(4)

2002 Pinto, M., Prise, K. M. and Michael, B. D., 2002 *Quantification of radiation induced DNA double-strand breaks in human fibroblasts by PFGE: testing the applicability of random breakage models*, Int J of Radiation Biology, **78**

Pinto, M., Prise, K. M. and Michael, B. D., 2002, *DSB rejoining after irradiation of human fibroblasts with X-rays or alpha-particles: PFGE studies and numerical models*, Radiat Prot Dosimetry, **99**

2001 Prise, K. M., Pinto, M., Newman, H. C. and Michael, B. D., 2001, *A review of studies of ionizing radiation-induced double-strand break clustering*, Radiation Research, **156**

2000 Pinto, M., Newman, H. C., Prise, K. M. and Michael, B. D., 2000, *Quantification of DNA damage by PFGE: development of an analytical approach to correct for the background distribution*, Int J of Radiation Biology, **76**

Major technical reports: Radiation Dosimetry

2015 Pinto M, D'Arienzo M, Bovi M, Guerra A S, Pimpinella M and Pia Toni M P, 2015, *Report to the CCRI section I on the activity carried out at ENEA-INMRI on photon and charged-particles dosimetry in the period 2013- 2015,* 22nd CCRI(I) Committee Meeting, BIPM, France

Massimo Pinto, Maria Pimpinella, Maurizio Quini, Marco D'Arienzo, Iordana Astefanoaei, Stefano Loreti, and Antonio Stefano Guerra, *Absorbed dose to water measurements in medium energy filtered x-ray beams by a new in-water-phantom graphite calorimeter*, Report D.1.2.3, ENEA-INMRI

Massimo Pinto, Maria Pimpinella, and Antonio Stefano Guerra, ENEA-INMRI Report to the EURAMET Comparison of primary absorbed dose to water standards in the medium-energy x-ray range

2013 M.P. Toni, M. Pinto, M D'Arienzo, A.S. Guerra, M. Pimpinella, M. Bovi, 2013, *Report to the CCRI section I on the activity carried out at ENEA-INMRI on photon and charged-particles dosimetry in the period 2011-2013*, 21st CCRI(I) Committee Meeting, BIPM, France

2012 Maurizio Bovi, Marco Capogni, Claudio Caporali, Marco D'Arienzo, Pierino De Felice, Antonio Stefano Guerra, Maria Pimpinella, Massimo Pinto, Maria Pia Toni, *Ionizing radiation metrology in cancer radiation therapy*, Energia, Ambiente ed Innovazione, **3**

2011 M.P. Toni, M. Pinto, A.S. Guerra, M. Pimpinella, M. Bovi, S Loreti, 2011, *Report to the CCRI section I on the activity carried out at ENEA-INMRI on photon and charged-particles dosimetry in the period 2009-2011*, 21st CCRI(I) Committee Meeting, BIPM, France

Other types of scientific publications

2016 ESTRO Newsletter, Editors' pick, Physics Corner on: Pinto *et. al.*, *A graphite calorimeter for absolute measurements of absorbed dose to water: application in medium-energy x-ray filtered beams*, **May-June** 2016 (in press)

2012 Vered Anzenberg Shaffer, Marjan Boerma, Manuela Buonanno, Sylvain Costes, Tracy Criswell, Geraldine Gonon, Badri Narain Pandey, Massimo Pinto, and Sara Rockwell, *Broadcasting in the airways: the fifth anniversary of the Radiation Research podcast*, Radiation Research, **178**

Partecipation in the European Area Metrology Research Programmes

2012-2015 Metrology for Radiotherapy using Complex Radiation fields (EMRP MetrExtRT), Workpackage I Leader, http://radiotherapy-emrp.eu

Biologically-Weighted Quantities in Radiotherapy (EMRP BioQuaRT), Workpackage IV Leader, https://www.ptb.de/emrp/bioquart-home.html

2009-2011 Increasing Cancer Treatment Efficacy Using 3D brachytherapy (iMera Plus Brachytherapy)

Ad hoc peer review

Scientific Journals	Metrologia, Radiation Measurements, Radiation Research, International Journal of Radiation Biology, British Journal of Radiology, Molecular Cancer Research

Teaching Experience

2016	Lecturer, First Level Master's Course in Protection in Chemical, Radiological, Biological, Nuclear and Explosives Events, March, University Tor Vergata, Rome, Italy
2008	Lecturer, Lazio Region Science Festival "Apriamo la Mente", May 16-17, Lazio Region, Italy
2006	Assistant Lecturer, Radiation Biology module, Radiology Residence Training, New Jersey Medical School (New Jersey, USA)
2002	Assistant Lecturer, Electromagnetism module, Physics course for Biology BSc students, University of Naples Federico II, Naples, Italy

Invited Lectures

2016	"I campioni nazionali e la riferibilità delle misure dosimetriche con radiazione fotonica di bassa energia ($<$ 50 keV) per scopi medici e radioprotezionistici", Elettra Sincrotrone Trieste, Italy, March 9
2007	Invited oral presentation on the "Cosmic Silence" experiment, Vatican Scientific Academy, Rome, Italy, December 20
	Plenary, Annual Meeting of the Italian Association for Medical Physics, Congress Center "Il Ciocco", Castelvecchio Pascoli (Lu), Italy, September

Awards and recognitions

2006	Scholar in Training Travel Award, Radiation Research Society (RRS) 53rd meeting, Philadelphia, Pennsylvania, USA, 4-8 November. Oral presentation
	Gallo Award for Outstanding Cancer Research, The Cancer Institute of New Jersey and The New Jersey State Commission on Cancer Research, Annual Retreat, Piscataway, NJ, USA, May 25. Oral presentation
2005	Young Investigator Award, 14th Symposium on Microdosimetry, Venezia, Italy, November 13-18. Oral presentation
2002	Young Investigator Award, Annual Biophysics School, Bressanone, Italy, September 10-13. Poster presentation
2001	Young Investigator Award, 7th International Workshop, Radiation Damage to DNA, Orleans, Nouans le Fuzelier, France, September 2-7. Oral presentation
	Young Investigator Award, 13th Symposium on Microdosimetry, Stresa, Lake Maggiore, Italy, May 27-June 1. Oral Presentation
2000	Young Investigator Award, Italian Society for Radiation Research (SIRR) 10th meeting, Frascati, Italy, November 19-22. Oral Presentation

	Young Investigator Award, Radiation Research Society (RRS) 47th meeting, Albuquerque, New Mexico, USA, 28 April-3 May. Oral and Poster presentation
	Young Investigator Award, Association for Radiation research (ARR) meeting, Bristol, UK, 10-12 April. Oral and Poster presentation. Also received a prize for one of the best three poster presentations at the meeting, *ex aequo*
1999	First prize for the best Laurea (*BSc*) graduation thesis in the field of radiation research in 1998, Italian Society for Radiation Research (SIRR), Annual Meeting, Padua, Italy. Also gave an oral presentation

Computing skills

OS	Linux, Unix, Mac, Windows
Programming	C++, Visual C, FORTRAN 90 for Monte Carlo simulations
Scientific	LaTeX, DataGraph
Web	Plone CMS, MySQL (basic)

Other Interests

Recreational	I like practicing sports like skiing, canoeing, sailing, hiking, both road and mountain bicycling. I also enjoy amatuer photography.
Science Communication	I have been a science communication blogger since 2006, writing on the Galileo science journal as guest research scientist blogger, and later on the multi-authored blog Fisici per il mondo. Between 2005 and 2013 I have directed the Podcast for the scientific monthly journal *Radiation Research* of the Radiation Research Society