



GIANLUCA TELL

RUOLO ATTUALE

*(Full Professor of Molecular Biology
Head of the Laboratory of Molecular Biology and DNA repair
Deputy Head of the Department of Medicine
Department of Medicine)*

Personal Information

📍: Udine, Piazzale M. Kolbe 4

✉: gianluca.tell@uniud.it

☎ +39 0432 494301

Personal Statement

His prevailing interests is the study of molecular mechanisms of gene expression particularly in the field of redox signalling and cell oxidative stress. Now, he is focusing on some aspects linking gene expression and DNA repair and its relevance in molecular oncology and cancer. In particular, from 1998, he contributed to the understanding of the molecular mechanisms, involving the main mammalian Apurinic/Apyrimidinic Endonuclease, i.e. APE1, in coordinating cellular responses to oxidative stress in different cell models. His background includes molecular and cellular biology as well as biochemistry techniques and –OMICS technologies to characterize the relationship between structure and function of proteins involved in gene expression and DNA repair. He coordinated several research projects granted from Telethon, AIRC, FIRB, FISIR, NIH, PRIN, ASI and worked as a Referee for several different International Journals, including: Oncogene, Nucleic Acids Research, Proteomics, Cancer Research, Clinical Cancer Research, etc. Actually, from 2010, his research activity is focused on characterizing the non-canonical roles of DNA repair enzymes of the Base Excision Repair pathway in association with RNA metabolism. He is currently head of the Laboratory of Molecular Biology and DNA repair of the Department of Medicine at the University of Udine, Italy, coordinating the work of three Post-Doctoral fellows and two PhD students.

Prof. G. Tell authored more than 150 publications in international peer reviewed journals and several international congress communications, concerning control of gene expression and DNA damage response during response to oxidative stress and genotoxic treatments. In 55% of these publications Prof. Tell gave a central contribution, acting as a first or last name. Total Impact Factor >500. The value of citation index (h-index) according to Scopus is 46 with a mean citation value of 39.50.

MAJOR ACHIEVEMENTS IN SCIENCE. Prof Tell has contributed to the understanding of the molecular mechanisms, involving the main mammalian Apurinic/Apyrimidinic Endonuclease APE1, in coordinating cellular responses to oxidative stress using different cancer cell models. He discovered one of the most important non-canonical roles of this protein in miRNA processing highly relevant in cancer biology.

EDUCATION

Got his Biology degree on 13 March 1993 (Academic Year 1991/92) at the University of Trieste, Italy

Research support

C. Research Support

In the Last 10 years, Prof. Tell received grants in support of his research activities, for an overall budget of more than 2 MEuros from different granting agencies including: the National Institutes of Health (NIH), MIUR, MAE, Telethon, AIRC, Regione FVG, Private Companies.

Ongoing Research Support

- 2021-2022 Research Grant MUR, FISR2020IP_01563 (D.D. n.562 del 5.5.2020), dal titolo: "A system approach platform, based on Artificial Intelligence (AI) / Machine Learning (ML), for serum proteomics, radiomics and clinical data analysis to identify diagnostic and prognostic biomarkers in SARS-CoV-2 (SCV2) infection". Project location: University of Udine, Italy. Total funding to Dr Tell: € 52.967,91.
- 2018-2022 Research grant AIRC #IG19862 (Unveiling the role of Ape1 in regulating tumor cell resistance to chemotherapy through miRNAs processing in HCC and NSCL). The goal of this proposal is to characterize new Ape1 functions in cancer resistance associated with miRNAs and gene expression regulation. This project will evaluate the roles of Ape1 and Ape1-regulated miRNAs as predictive biomarkers in NCSLC and HCC. Project location: University of Udine, Italy. Total funding to Dr Tell: € 454.000
- 2016-2021 Research Grant R01 NIH (1R01ES026243-01), National Institutes of Health agency: National Cancer Institute Special Emphasis Panel (Ribose-seq profile and analysis of ribonucleotides in DNA of oxidatively-stressed and cancer cells). PI: Prof. Francesca Storici, Georgia Technology Institute, Atlanta, GA, USA. Co-PI: Prof. Gianluca Tell Project. The goal of this project is to map ribonucleotides embedded in DNA in normal and cancer cells and identify the mechanisms for their repair. Project location: Georgia Technology Institute, Atlanta, GA, USA and University of Udine, Italy. Total fundings to Dr. Tell: \$388,190.
- 2017-2019 Crossborder cooperation program Interreg V Italia Austria Bando 2016 funded by the European Regional Development Fund (ERDF) and the National Funds, implemented by the Autonomous Region Friuli Venezia Giulia, in quality of Managing Authority (PreCanMed: Generation of a Precision Cancer Medicine platform). Total funding to Dr Tell: € 205.450

Completed Research Support

- 2015-2017 Research Grant R21 NIH, National Institutes of Health agency: National Cancer Institute Special Emphasis Panel (The Ape1-NPM1 Axis and Telomere Maintenance). PI: Prof. Bruce Demple, Stony Brook University, NY, USA. Co-PI: Prof. Gianluca Tell Project. Total fundings: \$429,642. The goal of this project is to unveil the role of the Ape1-NPM1 axis in telomere maintenance for development of new anticancer drugs. Project location: Stony Brook University, NY, USA and University of Udine, Italy
- 2014-2016 Research grant AIRC #IG14038 (Base Excision Repair dysregulation and cancer: Ape1 as a therapeutic target) € 169.604,0. The goal of this proposal is to identify the Ape1 regulated genes in cancer cells through RIP and ChipSeq gene analysis through NGS strategies and to identify small compounds able to interfere with the Ape1 functional network to sensitize tumor cells to anticancer therapy. Project location: University of Udine, Italy
- 2012-2015 Crossborder cooperation program Italy- Slovenia 2007- 2013 funded by the European Regional Development Fund (ERDF) and the National Funds, implemented by the Autonomous Region Friuli Venezia Giulia, in quality of Managing Authority (Environmental pollutants and neurodegenerative diseases).
- 2010-12 Research grant AIRC #IG10269 – three years (Understanding the functional regulation of APE1 for development of new specific inhibitors) € 201.930,00
- 2010-12 Telethon, Grant # GGP10051B (New diagnostic and therapeutic approaches for the Crigler–Najjar Syndrome Type I)

- 2010-12 Research grant PRIN_2008CCPKRP_003 (Molecular networks involving APE1 and role of post-translational modifications in fine-tuning the APE1 different functions for development of new drugs for cancer treatment). Co-PI, €34.857
- 2009-2010 ITALY/FRANCE 'Galileo' exchange grant from the Università Italo-Francese.
- 2008-11 Grant FIRB-National Proteomics Network RBRN07BMCT_008 (Italian Human ProteomeNet) €1.006.000
- 2008-10 EU/USA Exchange Grant by Ministry from Foreign Affairs: Role of Ape1 in Neurotoxicity of Cancer Treatments
- 2006-08 Telethon, Grant #GGP06208 (DJ-1 in neurodegeneration)
- 2005-09 Private grants from Procter & Gamble and Abiogen
- 2005-07 AIRC, (New approaches for studying genetics, early molecular diagnosis and prognostic factors relevant for HCC)
- 2005-07 Telethon, Grant #GGP05062 (Genetic determinants of bilirubin encephalopathy)
- 2005-07 National coordinator grant PRIN2005051307 (Molecular mechanisms of cell response to oxidative stress) €182900

Publications

Prof Tell has more than 180 scientific publications. Peer reviewed Publications and citations parameters:

- First author publications: 25
- Last/corresponding author publications: 60
- Total publications in peer reviewed international journals: 166
- Peer-reviewed publications at this link: ORCID ID: <https://orcid.org/0000-0001-8845-6448>.
- Scopus Author ID: 7005032283
- Sum of the Times Cited (Scopus): 7111
- Average Citations per Item (Scopus): 39.50
- h-index (Scopus): 46

Most cited paper: The intracellular localization of APE1/Ref-1: More than a passive phenomenon? Tell, G; Damante, G; Caldwell, D; et al. *ANTIOXIDANTS & REDOX SIGNALING* (2005), 7, 367-384. Number of citations: 264 with a mean of 21.82/year.

Paper with highest Impact Factor: Antoniali G, Serra F, Lirussi L, Tanaka M, D'Ambrosio C, Zhang S, Radovic S, Dalla E, Ciani Y, Scaloni A, Li M, Piazza S, Tell G. Mammalian APE1 controls miRNA processing and its interactome is linked to cancer RNA metabolism. *Nature Communications* (2017) Oct 6;8(1):797. doi: 10.1038/s41467-017-00842-8. PubMed PMID: 28986522; PubMed Central PMCID: PMC5630600. Impact Factor: 12.1

Journals with mid-high Impact Factor in which Prof. G. Tell published as first or as corresponding author:

1. Nature Communications
2. Nucleic Acids Research
3. Molecular and Cellular Biology
4. Oncogene
5. Genome Biology
6. Antioxidants and Redox Signalling
7. Journal of Biological Chemistry
8. Molecular Biology of the Cell

Referee for the following granting agencies:

1. NSERC (Canada)
2. Wellcome Trust (UK)
3. Cancer Research (UK)
4. Georgia Ministry of Science
5. National Medical Research Council (NMRC), Singapore
6. Italian MIUR
7. Italian Association for Cancer Research (AIRC)
8. National Academy of Sciences of Poland

Referee for the following journals

- Analytical Chemistry
- Antioxid. Redox. Signal.
- Biochemical Journal
- Biochimica and Biophysica Acta
- Biotechnology Progress
- Biochimie
- Cancer Research
- Cell Biology International
- Cell Death and Differentiation
- DNA Repair
- European Journal of Pharmacology
- Experimental Cell Research
- Gastroenterology
- Gene
- Hepatology
- International Journal of Biochemistry & Cell Biology
- International Journal of Cancer
- J. Proteome Res.
- Molecular and Cellular Endocrinology
- Molecular Biosystems
- Mutation Research
- Nucleic Acids Research
- Nucleic Acids Research-Cancer
- Nucleic Acids Research-Methods
- Nature Metabolism
- Oncogene
- Oncology
- PlosONE
- PNAS
- Proteomics
- RNA

Associate Editor of the following Journals

- Biomolecules
- BMC Research Notes
- BMC Biochemistry
- Proceedings of the National Academy of Sciences (PNAS)
- Scientific Reports

Teaching and services to students

Teaching

Medical School of the University of Trieste

1. Molecular Biology (4 CFU), B.Sc. Degree in Medical Biotechnologies, Academic Years 2000/2001, 2001/2002, undergraduate students;
2. Molecular Biology 2 (4 CFU), B.Sc. Degree in Medical Biotechnologies, Academic Years 2001/2002, 2002/2003, 2003/2004, undergraduate students;
3. Molecular Biology (1 CFU), Degree in Medical Dentistry, Academic Years 2001/2002, 2002/2003, undergraduate students;
4. Recombinant technologies (2 CFU), B.Sc. Degree in Medical Biotechnologies, Academic Years 2001/2002, 2002/2003, undergraduate students;
5. Functional Genomics and Proteomics (3 CFU), M.Sc. Degree in Medical Biotechnologies, Academic Years 2001/2002, 2002/2003, 2003/2004, 2004/2005, undergraduate students;
6. Techniques in Molecular Biology (9 CFU), B.Sc. Degree in Medical Biotechnologies, Academic Years 2001/2002, 2002/2003, 2003/2004, undergraduate students;
7. Molecular Genetics 2 (2 CFU), Master School in Medical Genetics, Academic Years 2001/2002, 2002/2003, graduated students.

For all the above-indicated courses, Prof. G. Tell acted as member or President of the evaluation commission. For all the courses held by Prof. G. Tell, the overall judgment of the students was always completely satisfactory.

Medical School and Biotechnology School of the University of Udine, Italy

1. General Pathology Degree in Rehabilitation Physiotherapy (4 CFU), Academic Year 1998/1999, undergraduate students;
3. Techniques in Molecular Biology (9 CFU), B.Sc. Degree in Medical Biotechnologies, Department of Medicine, Academic Years: 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2009/2010, 2017/18, undergraduate students;
4. Molecular Methodologies in Proteomics (3 CFU), Department of Medicine, M.Sc. Degree in Medical Biotechnologies, Academic Years: 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2009/2010, 2010/2011, 2016/17, undergraduate students;
5. DNA repair mechanisms in mammalian cells (1 CFU), Department of Medicine, M.Sc. Degree in Medical Biotechnologies, Academic Years: 2007/2008, 2008/2009, 2009/2010, undergraduate students;
6. Molecular Biology (1 CFU, 16 hours), Department of Medicine, M.Sc. Degree in Sports Medicine, Academic Year 2011/2012, 2012/13, 2013/14, undergraduate students;
7. Molecular Biology (7 CFU), Department of Medicine, B.Sc. Degree in Biotechnologies, Academic Years: 2011/2012, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, undergraduate student;
8. Molecular Biology (5 CFU), Department of Medicine, Degree in Medicine, Academic Years: 2011/2012, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, undergraduate students.

For all the above indicated courses, Prof. G. Tell acted as member or President of the evaluation commission. For all the courses held by Prof. G. Tell, the overall judgment of the students was always completely satisfactory.

PhD Program in "Biomedical Sciences and Biotechnologies" of the University of Udine

From 2005-present Prof. G. Tell acted as teaching member of the PhD Program in "Biomedical Sciences and Biotechnologies" of the University of Udine.

Supervisor of Graduated Students (years 1998-2018): 77 students

- 7 in Biology, University of Trieste
- 1 in Chemistry, University of Trieste
- 24 in Medical Biotechnologies, University of Trieste
- 42 in Biotechnologies, Department of Medicine, University of Udine
- 2 in Biomedical Laboratory, Department of Medicine, University of Udine
- 1 in Medicine, Department of Medicine, University of Udine

Supervisor of Post-graduated students (years 2005-2018): 19 students

- 2 in Biochemistry, University of Trieste
- 17 in Biomedical Technologies, Department of Medicine, University of Udine

Supervisor of PhD students (years 2005-2021): 15

- 2 in Biomedical Sciences at the University of Trieste
- 13 in Biomedical Sciences and Biotechnologies at the Department of Medicine, University of Udine

Supervisor of PostDoctoral fellows (years 2005-2018): 18 Fellows

2 At the University of Trieste

16 At the Department of Medicine, University of Udine

Participation to the Laurea Commission for the Degrees in Medicine and Biotechnology and for PhD Degrees

-From 2000-present: member or President of the evaluation commission for the 'Laurea' Degrees in Medicine or in Biotechnologies both at the University of Trieste and Udine;

-From 2005-present Prof. G. Tell acted as member of the PhD Program in "Biomedical Sciences and Biotechnologies" of the University of Udine;

-From Academic Year 2016-2017-present: member of the evaluation committee for the PhD Program in "Molecular Biomedicine" of the University of Trieste;

-Academic Year 2016-2017: member of the evaluation committee for the PhD Program in "Molecular Medicine and Medical Biotechnologies-XXIX Cycle" of the University of Napoli.

Dissemination of Science and students orienteering activities

- From 2014-present: Organizer or collaborator to several orienteering events for college students, such as the "Open Day" and the "Moduli Formativi" (<https://www.uniud.it/it/servizi/servizi-orientamento-scuole/servizi-scuole/moduli-formativi>) of the University of Udine. These activities involve about 400 students/year;

- Academic Years 2015-2018: Coordinator for the University of Udine of the dissemination initiative in the field of Biology and Biotechnologies to students of the Primary and Secondary Schools within the Project titled 'Piano Lauree Scientifiche-PLS-Biotecnologie', granted by the MIUR. These activities involve about 600 students/year.

Seminars and Conferences

Invited seminars and International teaching courses

- October 11th, 1997; Udine University - Medical School, Department of Biomedical Sciences and Technologies, Udine – Italy;

- April 5th, 1998; Udine University - Medical School, Department of Biomedical Sciences and Technologies, Udine – Italy;

- February 20th, 1999; Naples University - Medical School, Department of Molecular and Cellular Pathology 'L. Califano', Naples - Italy;

- March 7th, 2001; Florence University - Chemistry School, CERM and Department of Chemistry, Title: "Role of APE/Ref-1 in the transcriptional control of eukaryotic cells", Florence – Italy;

- October 1st, 2004; Trieste, AREA Science Park – EASL International Workshop 'The Molecular Basis of Bilirubin Encephalopathy and Neurotoxicity' – Title: "Redox regulation of cellular functions: new perspectives for the antioxidant role of bilirubin", Trieste – Italy;

- July 20th, 2007; Trieste, AREA Science Park – Summer School in Molecular Medicine – Title: "Proteomics in the new post-genomic era", Trieste – Italy;

- November 14th, 2007, Indiana University Melvin and Bren Simon Cancer Center; Title: "The many faces of APE1/Ref-1: molecular journey to unveil the secrets of this multifunctional protein", Indianapolis, IN (USA);

- November 23rd (2010); Department of Molecular Embriology, DKFZ, Heidelberg, D, Title: 'New insights into the unusual DNA repair protein APE1 and implications for cancer';

- April 7th, 2011; Naples University - Medical School, Department of Molecular and Cellular Pathology 'L. Califano', Naples - Italy; Title: 'New insights into the unusual DNA repair protein APE1 and implications for cancer';

- September 17th, 2012; College of Medicine, Graduate Center for Toxicology, University of Kentucky, Lexington, KY 40536-0305, USA –Title: "New insights into the unusual DNA repair protein Ape1 and relevance for Base Excision Repair and cancer";

- June 13th, 2018; Fondazione Istituto Italiano di Tecnologia (IIT), Genova Italy; Title: 'Non canonical roles of BER enzymes in RNA processing: novel perspectives in cancer biology through the study of APE1 RNA- and protein-interactomes' (Host: Stefano Gustincich);

- September 24-29, 2018; Savitribai Phule, Pune University, Pune, INDIA; Teaching course of 15 hours: "Genome integrity and DNA repair in cancer" under the GIAN scheme of MHRD, Government of India.

- September 25th, 2018; National Centre for Cell Science S.P. Pune University Campus, Pune, INDIA; Title: "Non canonical roles of BER enzymes in RNA processing: novel perspectives in cancer biology through the study of APE1 protein - and RNA –interactomes"

- September 27th, 2018; Indian Institute of Science Education and Research, Pune, India; Title: "Non canonical roles of BER enzymes in RNA processing: novel perspectives in cancer biology through the study of APE1 protein - and RNA – interactomes"
- April 3rd, 2019; School of Biological Sciences, Georgia Institute of Technology, Atlanta (GA), USA (Host: Prof. Francesca Storici);
- April 5th, 2019; Department of Biochemistry, St Louis University, St Louis (MO) USA, (Host: Prof. Alessandro Vindigni);
- April 9th, 2019; NIEHS/NIH, Triangle Park (VA), USA (Host: Prof. Samuel Wilson)
- May 11th, 2019; Opening Lecture at the '5th Liangjiang Meeting on the tumor and transformation research', Chongqing, China;
- September 24th, 2019; Istituto Superiore di Sanità, Rome, Italy (Host: Dr. Eugenia Dogliotti)

Meeting/Courses organization and invited chairman

- September 8th-11th 2003. European Science Foundation Programme on integrated approaches for functional genomics. Biocrystallography course: from gene to drug, Trieste, Italy. Chairman and course organizer in collaboration with Prof. Silvano Geremia
- February 29th-March 1st 2012. EASL Basic School of Hepatology, course 7: Hepatocyte damage and Liver metabolism, Trieste, Italy. Chairman and course organizer in collaboration with Prof. Claudio Tiribelli.
- September 24th-28th 2017, 6th EU-US International Meeting on Endogenous DNA Damages, Udine, Italy. Chairman and Congress organizer in collaboration with Prof. Robert Sobol, Alexander Buerckle, Eugenia Dogliotti;
- March 21st 2018, Chairman and invited speaker at EEMGS International Conference, Potsdam, Germany.

invitations as speaker in International Congresses

- 2008-2012 Consultant, Ministry of Science (Georgia)
- 2008 Invited Speaker at "Anticancer Research Congress" in Kos, Greece;
- 2009 Invited Speaker at "3rd US/EU-DNA repair meeting" in Galveston, TX-USA;
- 2010 Invited Speaker at INBB meeting in Rome, Italy;
- 2011 UICC Yamagiwa-Yoshida Memorial International Cancer Study Grant funded by the Kyowa Hakko Kogyo Company Ltd., Tokyo and the Japan National Committee for UICC
- 2011-present Consultant, Ministry of University and Research (Italy);
- March 2018, Inviter Speaker at EEMGS International Conference, Potsdam, Germany;
- August 2018, Invited Speaker by the Institute of Chemical Biology and Fundamental Medicine, SB, RAS, NSU Novosibirsk Russia, to give a lecture at the 11th International Multiconference BGRS/SB-2018 "Bioinformatics of Genome Regulation and Structure/Systems Biology", at Novosibirsk, Russia.

Research topics and themes developed

I. Research topics developed by Prof. G. Tell

The scientific activity of Prof. G. Tell is fully developed within the themes of the BIO / 11 Disciplinary Scientific Sector. Scientific activity in recent years has developed according to the following three major lines of research:

A. Gene expression and molecular mechanisms controlling cellular responses to oxidative stress.

A.1 Molecular mechanisms involved, role and regulation of the Ape1/Ref-1 coactivator in the cellular response to oxidative stress;

A.2 Structure/function relationship of the Transcription Factors.

B. Innovative approaches in the characterization of the complexity of biological systems applied to Molecular Medicine.

B.1 New Proteomics approaches applied to: i) ischemia / reperfusion injury in liver transplantation; ii) identification of biomarkers in pre-eclampsia; iii) identification of transcriptional targets of NF- κ B in the neoplastic transformation process in thyroid carcinoma; iv) identification of molecular targets of the action of bisphosphonates in osteoblastic cell lines.

C. Non-canonical roles of DNA repair pathways in RNA metabolism

Specific description of the research themes developed by Prof. G. Tell

A. Gene expression and molecular mechanisms controlling cellular responses to oxidative stress.

A.1 Molecular mechanisms involved, role and regulation of the Ape1/Ref-1 coactivator in the cellular response to oxidative stress.

This topic has been the main interest of all the scientific activity of Prof. Gianluca Tell. Reactive oxygen species (ROS), such as H₂O₂, and OH° and O₂° radicals, play important physiological functions but can also cause cell damage and DNA mutations. The balance between physiological functions and damage is determined by the relative relationship between production and removal of ROS. Normally, these species are quickly removed before they can interfere with the functioning of the cell or bring it to death. Oxidative stress, an imbalance between the production of ROS and the antioxidant defense capabilities of the cell, can affect the main cellular components such as lipids, proteins, carbohydrates and DNA. This is closely associated with a number of human diseases such as many degenerative diseases, cardiovascular diseases, diabetes, cancer, neurodegenerative diseases and inflammatory processes. Various experimental evidences indicate that the redox state (oxidation / reduction) of the cell may affect growth and other cellular functions through the modulation of signal transduction pathways that start from the membrane receptors (such as the purinergic receptors) and arrive at conditioning cell specific gene expression. These pathways include the activation of gene expression mediated by various transcription factors (FT) such as Egr-1, Pax8, NF-κB, AP-1, HIF-1, p53, c-Myc. The redox activation of these FT controls, in turn, a series of cellular responses to a variety of environmental stimuli. These responses include cell cycle control and differentiation, programmed cell death, cytokine gene expression, and growth factors. The emergence of these pathways of activation is mediated by the presence/production of ROS, which are therefore considered, in sublethal doses, as signalling molecules. Experimental observations, in which antioxidants are able to block signal transduction, provide further evidence that ROS can act as second messengers. In numerous models of human pathology (such as Gaucher's disease, fatty liver disease, estrogen-deficient osteoporosis, kernicterus, Parkinson's disease, liver cancer) and in physiological conditions (in ischemia/reperfusion during liver transplantation) there is a process of alteration of cellular redox homeostasis. These models have been studied by Prof. G. Tell in the perspective described above. From the molecular point of view, an important role in the cellular adaptive response to oxidative stress is that played by Ape1/Ref-1, a protein involved in the processes of DNA oxidative damage repair and in the regulation of gene expression acting as a transcriptional co-activator of numerous FTs such as: p53, AP-1, NF-κB, Myb, HIF-1. Little is known about the ways in which Ape1 can perform, in a specific way, its multiple functions but it is now certain its involvement in processes of tumorigenesis and chemoresistance. The work carried out by Prof. Tell, has allowed to elucidate some aspects related to the regulation of the different functions of Ape1, in different models both *in vitro* and *in vivo*, as well as the biological role of these functions in particular associated with pathological events. The group coordinated by Prof. G. Tell has recently identified a new function, associated with the metabolism of RNA, which would explain the involvement of this protein in tumor transformation. In collaboration with the Cancer Genomic Center of the National Institutes of Health in Bethesda (MD, USA), Prof. Tell's group has selected specific inhibitors for this function in order to develop new anti-tumor strategies. The scientific value of these projects has been recognized by several fundings received from AIRC, MIUR and Friuli Venezia Giulia Region.

A.2 Structure/function relationship of Transcription Factors

This topic, which in the early phases of his career has characterized the scientific activity of Prof. Gianluca Tell, has also been dealt with. The main model, in which these topics were studied, was the thyroid cell, in which differentiation and proliferative events are modulated, in particular, by hormonal stimulation by TSH (thyrotropin). Pax-8 is one of the main transcription factors responsible for the expression of thyroid-specific genes encoding Thyroglobulin (Tg) and for the enzyme Thyroperoxidase (TPO). In particular, the role of DNA binding domain of Pax-8, called Paired domain, was studied in the promoter sequence of the aforementioned genes. The type of approach used was of a structural type (X-ray and NMR crystallography) as well as biochemical characterization 'in vitro' (recognition of DNA sequences). The data obtained have made a significant contribution to the understanding of how these classes of proteins may recognize specific DNA sequences and have allowed to extend the observations also to another transcription factor (Pax6) belonging to the same family but to a different subclass of which it has been characterized the role of a human mutation.

B. Innovative approaches in the characterization of the complexity of biological systems applied to Molecular Medicine.

B.1 New Proteomics approaches applied to: i) ischemia / reperfusion injury in liver transplantation; ii) identification of biomarkers in pre-eclampsia; iii) identification of transcriptional targets of NF-κB in the neoplastic transformation process in thyroid carcinoma; iv) identification of molecular targets of the action of bisphosphonates.

One of the modern challenges of Molecular Medicine is to characterize and study biological systems and pathology models in their complexity, rather than as a multitude of individual components through -OMICS approaches. To this end, technologies for the definition of cellular and tissue proteome, highly processive and of high resolution have recently been developed. Through the use of two-dimensional gel analysis techniques (2D-PAGE) and high sensitivity mass spectrometry (MS) (MALDI-TOF), applied both to samples of tissue and cellular protein extracts and to the analysis of conditioned culture and amniotic fluid from patients with preeclampsia, Prof. G. Tell has contributed to the identification of new protein markers of tissue damage as a result of the ischemia / reperfusion process during liver transplantation, of a new marker of early damage of preeclampsia and some proteins involved in the processes of neoplastic transformation in thyroid carcinoma. In the very recent years, also Functional Genomics approaches based on NGS strategies have been coupled with Proteomics strategies

described. The unbiased and high-throughput techniques in the Genomic and Proteomic field developed, were also applied for the identification of the molecular mechanisms in the antitumor effects of the amino-bisphosphonate drugs (currently used in antitumor therapy for the treatment of breast carcinoma metastasis and for the treatment of osteoporosis, in a project developed in collaboration with Procter & Gamble, USA). These projects have been developed with the contribution of different structures both at national and international level. Currently, the laboratory of Prof. Tell has developed a series of functional proteomic and genomics methodologies and cellular models for the study and characterization of the interactome of Ape1 in order to develop specific inhibitors for the different activities of this protein in the optics of antitumor therapy and neurodegenerative diseases.

C. Non-canonical roles of DNA repair pathways in RNA metabolism

This is the most recent Topic developed by Prof. Tell and is largely based on previous research experiences. The Base Excision Repair (BER) pathway, initially studied as a mere DNA repair pathway, has been later found to be implicated in the expression of cancer related genes in human also thanks to the pioneeristic work led by Prof. Gianluca Tell who was the first demonstrating a role for Ape1 in RNA metabolism in 2009. A seminal paper has been recently published by Tell's group in Nature Communications demonstrating, for the first time, a role for Ape1 in miRNA processing important for cancer development. The BER handles simple alkylation and oxidative lesions arising from both endogenous and exogenous sources, including cancer therapy agents. Surprisingly, and largely thanks to the work carried out by Prof. G. Tell in the last decade, BER pathway involvement in transcriptional regulation, immunoglobulin variability and switch recombination, RNA metabolism and nucleolar function is astonishingly consolidating. An emerging evidence in tumor biology is that RNA processing pathways may participate in DNA Damage Response (DDR) and that defects in these regulatory connections are associated with genomic instability of cancers. In fact, many BER proteins are associated with those involved in RNA metabolism, ncRNA processing and transcriptional regulation, including within the nucleolus, proving a substantial role of the interactome network in determining their non-canonical functions in tumor cells. Maybe these new insights of BER enzymes, along with their emerging function in RNA-decay, may explain BER essential role in tumor development and chemoresistance and may explain the long-time mystery. The actual work led by Prof. G. Tell and his research group point to these potential new roles of BER in gene expression and RNA metabolism, as well as on the recent identification for a role of BER in recognition and repair of abasic and oxidized ribonucleotides embedded in DNA. This field of studies is very promising as also confirmed by a 5-years project recently granted, in 2017, by the Associazione Italiana per la Ricerca sul Cancro.

List of Publications

A. Full papers in peer reviewed international journals

1. Tell, G., Leonardi, A., Damante, G., Di Lauro, R. and Formisano, S. "Circular Dichroism as Preliminary Approach on the Study of Secondary Structure of Homeodomains". (1993) *Minerva Biotech.* 5, 220-223.
2. Damante G, Tell G, Formisano S, Fabbro D, Pellizzari L, Di Lauro R. Effect of salt concentration on TTF-1 HD binding to specific and non-specific DNA sequences. *Biochem Biophys Res Commun.* 1993 Dec 15;197(2):632-8. PubMed PMID: 8267599.
3. Damante G, Tell G, Leonardi A, Fogolari F, Bortolotti N, Di Lauro R, Formisano S. Analysis of the conformation and stability of rat TTF-1 homeodomain by circular dichroism. *FEBS Lett.* 1994 Nov 14;354(3):293-6. PubMed PMID: 7957942.
4. Fabbro D, Tell G, Pellizzari L, Leonardi A, Pucillo C, Lonigro R, Damante G. Definition of the DNA-binding specificity of TTF-1 homeodomain by chromatographic selection of binding sequences. *Biochem Biophys Res Commun.* 1995 Aug 24;213(3):781-8. PubMed PMID: 7654238.
5. Bearz A, Tolazzi G, Leonardi A, Pucillo C, Tell G, Colombatti A, Formisano S. Expression, purification and functional characterisation of a Kunitz-type module from chicken type VI collagen. *Biochem Biophys Res Commun.* 1995 Oct 24;215(3):1050-5. PubMed PMID: 7488030.
6. Fabbro D, Tell G, Leonardi A, Pellizzari L, Pucillo C, Lonigro R, Formisano S, Damante G. In the TTF-1 homeodomain the contribution of several amino acids to DNA recognition depends on the bound sequence. *Nucleic Acids Res.* 1996 Sep 1;24(17):3283-8. PubMed PMID: 8811078; PubMed Central PMCID: PMC146104.
7. Damante G, Pellizzari L, Esposito G, Fogolari F, Viglino P, Fabbro D, Tell G, Formisano S, Di Lauro R. A molecular code dictates sequence-specific DNA recognition by homeodomains. *EMBO J.* 1996 Sep 16;15(18):4992-5000. PubMed PMID: 8890172; PubMed Central PMCID: PMC452237.
8. Esposito G, Fogolari F, Damante G, Formisano S, Tell G, Leonardi A, Di Lauro R, Viglino P. Analysis of the solution structure of the homeodomain of rat thyroid transcription factor 1 by 1H-NMR spectroscopy and restrained molecular mechanics. *Eur J Biochem.* 1996 Oct 1;241(1):101-13. PubMed PMID: 8898894.
9. Leonardi A, Altomonte M, Maio M, Tell G, Bearz A, Formisano S, Pucillo C. Biphasic control of NF-kappa B activation induced by the triggering of HLA-DR antigens expressed on B cells. *Cytokine.* 1997 May;9(5):295-9. PubMed PMID: 9195127.
10. Pellizzari L, Tell G, Fabbro D, Pucillo C, Damante G. Functional interference between contacting amino acids of homeodomains. *FEBS Lett.* 1997 May 5;407(3):320-4. PubMed PMID: 9175876.

11. Esposito G, Fogolari F, Damante G, Formisano S, Tell G, Leonardi A, Di Lauro R, Viglino P. Hydrogen-deuterium exchange studies of the rat thyroid transcription factor 1 homeodomain. *J Biomol NMR*. 1997 Jun;9(4):397-407. PubMed PMID: 9255944.
12. Moro M, Ceriello A, Mercuri F, Tell G, Pellizzari L, Damante G. Glyceraldehyde 3-phosphate-induced DNA or protein modifications severely inhibit the protein/DNA interaction. *Horm Metab Res*. 1997 Jul;29(7):347-50. PubMed PMID: 9288567.
13. Arlotta P, Rustighi A, Mantovani F, Manfioletti G, Giancotti V, Tell G, Damante G. High mobility group I proteins interfere with the homeodomains binding to DNA. *J Biol Chem*. 1997 Nov 21;272(47):29904-10. PubMed PMID: 9368066.
14. Tell G, Perrone L, Fabbro D, Pellizzari L, Pucillo C, De Felice M, Acquaviva R, Formisano S, Damante G. Structural and functional properties of the N transcriptional activation domain of thyroid transcription factor-1: similarities with the acidic activation domains. *Biochem J*. 1998 Jan 15;329 (Pt 2):395-403. PubMed PMID: 9425125; PubMed Central PMCID: PMC1219057.
15. Bearz A, Tell G, Colombatti A, Formisano S, Pucillo C. Fibronectin binding promotes a PKC-dependent modulation of NF-kappa B in human T cells. *Biochem Biophys Res Commun*. 1998 Feb 24;243(3):732-7. PubMed PMID: 9500973.
16. Tell G, Scaloni A, Pellizzari L, Formisano S, Pucillo C, Damante G. Redox potential controls the structure and DNA binding activity of the paired domain. *J Biol Chem*. 1998 Sep 25;273(39):25062-72. PubMed PMID: 9737963.
17. Tell G, Pellizzari L, Cimarosti D, Pucillo C, Damante G. Ref-1 controls pax-8 DNA-binding activity. *Biochem Biophys Res Commun*. 1998 Nov 9;252(1):178-83. PubMed PMID: 9813166.
18. Pellizzari L, Tell G, Damante G. Co-operation between the PAI and RED subdomains of Pax-8 in the interaction with the thyroglobulin promoter. *Biochem J*. 1999 Jan 15;337 (Pt 2):253-62. PubMed PMID: 9882622; PubMed Central PMCID: PMC1219959.
19. Scaloni A, Monti M, Acquaviva R, Tell G, Damante G, Formisano S, Pucci P. Topology of the thyroid transcription factor 1 homeodomain-DNA complex. *Biochemistry*. 1999 Jan 5;38(1):64-72. PubMed PMID: 9890883.
20. Tell G, Pellizzari L, Damante G. TRANSCRIPTION FACTORS AND CANCER. THE EXAMPLE OF PAX GENES. *Adv Clin Path*. 1997 Oct;1(4):243-255. PubMed PMID:10352486.
21. Tell G, Pellizzari L, Esposito G, Pucillo C, Macchia PE, Di Lauro R, Damante G. Structural defects of a Pax8 mutant that give rise to congenital hypothyroidism. *Biochem J*. 1999 Jul 1;341 (Pt 1):89-93. PubMed PMID: 10377248; PubMed Central PMCID: PMC1220333.
22. Russo D, Tell G, Marin L, Tiribelli M, Santucci MA, Pucillo C. All-trans retinoic acid (ATRA) potentiates the in vitro inhibitory effects of IFN-alpha in parental (32D) and p210-bcr/abl transfected (LG7) murine myeloid cell lines. *Haematologica*. 1999 Oct;84(10):955-7. PubMed PMID: 10509049.
23. Civilini M, de Bertoldi M, Tell G. Molecular characterization of *Pseudomonas aeruginosa* 2NR degrading naphthalene. *Lett Appl Microbiol*. 1999 Sep;29(3):181-6. PubMed PMID: 10530039.
24. Bearz A, Tell G, Formisano S, Merluzzi S, Colombatti A, Pucillo C. Adhesion to fibronectin promotes the activation of the p125(FAK)/Zap-70 complex in human T cells. *Immunology*. 1999 Dec;98(4):564-8. PubMed PMID: 10594689; PubMed Central PMCID: PMC2326958.
25. Tell G, Acquaviva R, Formisano S, Fogolari F, Pucillo C, Damante G. Comparative stability analysis of the thyroid transcription factor 1 and Antennapedia homeodomains: evidence for residue 54 in controlling the structural stability of the recognition helix. *Int J Biochem Cell Biol*. 1999 Nov;31(11):1339-53. PubMed PMID: 10605826.
26. Fabbro D, Pellizzari L, Mercuri F, Tell G, Damante G. Pax-8 protein levels regulate thyroglobulin gene expression. *J Mol Endocrinol*. 1998 Dec;21(3):347-54. PubMed PMID: 9845675.
27. Morassutti C, Scaggiante B, Dapas B, Xodo L, Tell G, Quadrioglio F. Effect of phosphorothioate modifications on the ability of GTn oligodeoxynucleotides to specifically recognize single-stranded DNA-binding proteins and to affect human cancer cellular growth. *Biochimie*. 1999 Dec;81(12):1115-22. PubMed PMID: 10607406.
28. Tell G, Zecca A, Pellizzari L, Spessotto P, Colombatti A, Kelley MR, Damante G, Pucillo C. An 'environment to nucleus' signaling system operates in B lymphocytes: redox status modulates BSAP/Pax-5 activation through Ref-1 nuclear translocation. *Nucleic Acids Res*. 2000 Mar 1;28(5):1099-105. PubMed PMID: 10666449; PubMed Central PMCID: PMC102597.
29. Tell G, Pellizzari L, Pucillo C, Puglisi F, Cesselli D, Kelley MR, Di Loreto C, Damante G. TSH controls Ref-1 nuclear translocation in thyroid cells. *J Mol Endocrinol*. 2000 Jun;24(3):383-90. PubMed PMID: 10828831.
30. Pellizzari L, D'Elia A, Rustighi A, Manfioletti G, Tell G, Damante G. Expression and function of the homeodomain-containing protein Hex in thyroid cells. *Nucleic Acids Res*. 2000 Jul 1;28(13):2503-11. doi: 10.1093/nar/28.13.2503. PubMed PMID: 10871399; PubMed Central PMCID: PMC102703.
31. Civilini M, Pucillo C, Colombatti A, Damante G, de Bertoldi M, Tell G. Monoclonal antibody detection of naphthalene dioxygenase from *Pseudomonas aeruginosa* 2NR. *Lett Appl Microbiol*. 2000 Oct;31(4):313-8. PubMed PMID: 11068914.
32. Damante G, Tell G, Di Lauro R. A unique combination of transcription factors controls differentiation of thyroid cells. *Prog Nucleic Acid Res Mol Biol*. 2001;66:307-56. Review. PubMed PMID: 11051768.
33. Marsich E, Bandiera A, Tell G, Scaloni A, Manzini G. A chicken hnRNP of the A/B family recognizes the single-stranded d(CCCTAA)(n) telomeric repeated motif. *Eur J Biochem*. 2001 Jan;268(1):139-48. PubMed PMID: 11121114.
34. Tell G, Crivellato E, Pines A, Paron I, Pucillo C, Manzini G, Bandiera A, Kelley MR, Di Loreto C, Damante G. Mitochondrial localization of APE/Ref-1 in thyroid cells. *Mutat Res*. 2001 Mar 7;485(2):143-52. PubMed PMID: 11182545.
35. Russo D, Arturi F, Bulotta S, Pellizzari L, Filetti S, Manzini G, Damante G, Tell G. APE/Ref-1 expression and cellular localization in human thyroid carcinoma cell lines. *J Endocrinol Invest*. 2001 Mar;24(3):RC10-2. PubMed PMID: 11314755.

36. Puglisi F, Barbone F, Tell G, Aprile G, Pertoldi B, Raiti C, Kelley MR, Damante G, Sobrero A, Beltrami CA, Di Loreto C. Prognostic role of Ape/Ref-1 subcellular expression in stage I-III breast carcinomas. *Oncol Rep.* 2002 Jan-Feb;9(1):11-7. PubMed PMID: 11748448.
37. Tell G, Pines A, Paron I, D'Elia A, Bisca A, Kelley MR, Manzini G, Damante G. Redox effector factor-1 regulates the activity of thyroid transcription factor 1 by controlling the redox state of the N transcriptional activation domain. *J Biol Chem.* 2002 Apr 26;277(17):14564-74. Epub 2002 Feb 7. PubMed PMID: 11834746.
38. D'Elia AV, Tell G, Russo D, Arturi F, Puglisi F, Manfoletti G, Gattei V, Mack DL, Cataldi P, Filetti S, Di Loreto C, Damante G. Expression and localization of the homeodomain-containing protein HEX in human thyroid tumors. *J Clin Endocrinol Metab.* 2002 Mar;87(3):1376-83. PubMed PMID: 11889211.
39. Puglisi F, Aprile G, Minisini AM, Barbone F, Cataldi P, Tell G, Kelley MR, Damante G, Beltrami CA, Di Loreto C. Prognostic significance of Ape1/ref-1 subcellular localization in non-small cell lung carcinomas. *Anticancer Res.* 2001 Nov-Dec;21(6A):4041-9. PubMed PMID: 11911289.
40. Tell G, Pines A, Pandolfi M, D'Elia AV, Donnini D, Lonigro R, Manzini G, Russo D, Di Loreto C, Damante G. APE/Ref-1 is controlled by both redox and cAMP-dependent mechanisms in rat thyroid cells. *Horm Metab Res.* 2002 Jun;34(6):303-10. PubMed PMID: 12173070.
41. Russo D, Celano M, Bulotta S, Bruno R, Arturi F, Giannasio P, Filetti S, Damante G, Tell G. APE/Ref-1 is increased in nuclear fractions of human thyroid hyperfunctioning nodules. *Mol Cell Endocrinol.* 2002 Aug 30;194(1-2):71-6. PubMed PMID: 12242029.
42. Frossi B, Tell G, Spessotto P, Colombatti A, Vitale G, Pucillo C. H₂O₂ induces translocation of APE/Ref-1 to mitochondria in the Raji B-cell line. *J Cell Physiol.* 2002 Nov;193(2):180-6. PubMed PMID: 12384995.
43. Bandiera A, Tell G, Marsich E, Scaloni A, Pocsfalvi G, Akintunde Akindahunsi A, Cesaratto L, Manzini G. Cytosine-block telomeric type DNA-binding activity of hnRNP proteins from human cell lines. *Arch Biochem Biophys.* 2003 Jan 15;409(2):305-14. PubMed PMID: 12504897.
44. Paron I, Scaloni A, Pines A, Bachi A, Liu FT, Puppini C, Pandolfi M, Ledda L, Di Loreto C, Damante G, Tell G. Nuclear localization of Galectin-3 in transformed thyroid cells: a role in transcriptional regulation. *Biochem Biophys Res Commun.* 2003 Mar 14;302(3):545-53. PubMed PMID: 12615069.
45. D'Ambrosio C, Talamo F, Vitale RM, Amodeo P, Tell G, Ferrara L, Scaloni A. Probing the dimeric structure of porcine aminoacylase 1 by mass spectrometric and modeling procedures. *Biochemistry.* 2003 Apr 22;42(15):4430-43. PubMed PMID: 12693939.
46. Pines A, Romanello M, Cesaratto L, Damante G, Moro L, D'andrea P, Tell G. Extracellular ATP stimulates the early growth response protein 1 (Egr-1) via a protein kinase C-dependent pathway in the human osteoblastic HOBIT cell line. *Biochem J.* 2003 Aug 1;373(Pt 3):815-24. PubMed PMID: 12729460; PubMed Central PMCID: PMC1223538.
47. Dapas B, Tell G, Scaloni A, Pines A, Ferrara L, Quadrioglio F, Scaggiante B. Identification of different isoforms of eEF1A in the nuclear fraction of human T-lymphoblastic cancer cell line specifically binding to aptameric cytotoxic GT oligomers. *Eur J Biochem.* 2003 Aug;270(15):3251-62. PubMed PMID: 12869201.
48. Marsich E, Vetere A, Di Piazza M, Tell G, Paoletti S. The PAX6 gene is activated by the basic helix-loop-helix transcription factor NeuroD/BETA2. *Biochem J.* 2003 Dec 15;376(Pt 3):707-15. PubMed PMID: 12962539; PubMed Central PMCID: PMC1223810.
49. Puppini C, Arturi F, Ferretti E, Russo D, Sacco R, Tell G, Damante G, Filetti S. Transcriptional regulation of human sodium/iodide symporter gene: a role for redox factor-1. *Endocrinology.* 2004 Mar;145(3):1290-3. Epub 2003 Nov 20. PubMed PMID: 14630715.
50. Paron I, D'Elia A, D'Ambrosio C, Scaloni A, D'Aurizio F, Prescott A, Damante G, Tell G. A proteomic approach to identify early molecular targets of oxidative stress in human epithelial lens cells. *Biochem J.* 2004 Mar 15;378(Pt 3):929-37. PubMed PMID: 14678012; PubMed Central PMCID: PMC1224035.
51. Bisca A, D'Ambrosio C, Scaloni A, Puglisi F, Aprile G, Piga A, Zuiani C, Bazzocchi M, Di Loreto C, Paron I, Tell G, Damante G. Proteomic evaluation of core biopsy specimens from breast lesions. *Cancer Lett.* 2004 Feb 10;204(1):79-86. PubMed PMID: 14744537.
52. Puppini C, Presta I, D'Elia AV, Tell G, Arturi F, Russo D, Filetti S, Damante G. Functional interaction among thyroid-specific transcription factors: Pax8 regulates the activity of Hex promoter. *Mol Cell Endocrinol.* 2004 Feb 12;214(1-2):117-25. PubMed PMID: 15062550.
53. Tell G, Pines A, Arturi F, Cesaratto L, Adamson E, Puppini C, Presta I, Russo D, Filetti S, Damante G. Control of phosphatase and tensin homolog (PTEN) gene expression in normal and neoplastic thyroid cells. *Endocrinology.* 2004 Oct;145(10):4660-6. Epub 2004 Jul 1. PubMed PMID: 15231710.
54. Puglisi F, Minisini AM, Barbone F, Intersimone D, Aprile G, Puppini C, Damante G, Paron I, Tell G, Piga A, Di Loreto C. Galectin-3 expression in non-small cell lung carcinoma. *Cancer Lett.* 2004 Aug 30;212(2):233-9. PubMed PMID: 15279903.
55. Dalle-Donne I, Scaloni A, Giustarini D, Cavarra E, Tell G, Lungarella G, Colombo R, Rossi R, Milzani A. Proteins as biomarkers of oxidative/nitrosative stress in diseases: the contribution of redox proteomics. *Mass Spectrom Rev.* 2005 Jan-Feb;24(1):55-99. Review. PubMed PMID: 15389864.
56. Cesaratto L, Vascotto C, Calligaris S, Tell G. The importance of redox state in liver damage. *Ann Hepatol.* 2004 Jul-Sep;3(3):86-92. Review. PubMed PMID:15505592.

57. Paron I, D'Ambrosio C, Scaloni A, Berlingieri MT, Pallante PL, Fusco A, Bivi N, Tell G, Damante G. A differential proteomic approach to identify proteins associated with thyroid cell transformation. *J Mol Endocrinol*. 2005 Feb;34(1):199-207. PubMed PMID: 15691888.
58. Tell G, Damante G, Caldwell D, Kelley MR. The intracellular localization of APE1/Ref-1: more than a passive phenomenon? *Antioxid Redox Signal*. 2005 Mar-Apr;7(3-4):367-84. Review. PubMed PMID: 15706084.
59. Costessi A, Pines A, D'Andrea P, Romanello M, Damante G, Cesaratto L, Quadrifoglio F, Moro L, Tell G. Extracellular nucleotides activate Runx2 in the osteoblast-like HOBIT cell line: a possible molecular link between mechanical stress and osteoblasts' response. *Bone*. 2005 Mar;36(3):418-32. PubMed PMID:15777650.
60. Cesaratto L, Vascotto C, D'Ambrosio C, Scaloni A, Baccarani U, Paron I, Damante G, Calligaris S, Quadrifoglio F, Tiribelli C, Tell G. Overoxidation of peroxiredoxins as an immediate and sensitive marker of oxidative stress in HepG2 cells and its application to the redox effects induced by ischemia/reperfusion in human liver. *Free Radic Res*. 2005 Mar;39(3):255-68. PubMed PMID: 15788230.
61. Pines A, Bivi N, Romanello M, Damante G, Kelley MR, Adamson ED, D'Andrea P, Quadrifoglio F, Moro L, Tell G. Cross-regulation between Egr-1 and APE/Ref-1 during early response to oxidative stress in the human osteoblastic HOBIT cell line: evidence for an autoregulatory loop. *Free Radic Res*. 2005 Mar;39(3):269-81. PubMed PMID: 15788231.
62. Risso A, Tell G, Vascotto C, Costessi A, Arena S, Scaloni A, Cosulich ME. Activation of human T lymphocytes under conditions similar to those that occur during exposure to microgravity: a proteomics study. *Proteomics*. 2005 May;5(7):1827-37. PubMed PMID: 15825147.
63. Romanello M, Codognotto A, Bicego M, Pines A, Tell G, D'Andrea P. Autocrine/paracrine stimulation of purinergic receptors in osteoblasts: contribution of vesicular ATP release. *Biochem Biophys Res Commun*. 2005 Jun 17;331(4):1429-38. PubMed PMID: 15883034.
64. Russo D, Bisca A, Celano M, Talamo F, Arturi F, Scipioni A, Presta I, Bulotta S, Ferretti E, Filetti S, Scaloni A, Damante G, Tell G. Proteomic analysis of human thyroid cell lines reveals reduced nuclear localization of Mn-SOD in poorly differentiated thyroid cancer cells. *J Endocrinol Invest*. 2005 Feb;28(2):137-44. PubMed PMID: 15887859.
65. Di Loreto C, Tell G, Pestrin M, Pandolfi M, Damante G, Puglisi F. PTEN and Egr-1 expression in thyroid proliferative lesions. *Cancer Lett*. 2005 Jun 16;224(1):105-9. Epub 2004 Nov 23. PubMed PMID: 15911105.
66. Puppini C, D'Aurizio F, D'Elia AV, Cesaratto L, Tell G, Russo D, Filetti S, Ferretti E, Tosi E, Mattei T, Pianta A, Pellizzari L, Damante G. Effects of histone acetylation on sodium iodide symporter promoter and expression of thyroid-specific transcription factors. *Endocrinology*. 2005 Sep;146(9):3967-74. Epub 2005 May 26. PubMed PMID: 15919754.
67. Ferretti E, Arturi F, Mattei T, Scipioni A, Tell G, Tosi E, Presta I, Morisi R, Lacroix L, Gulino A, Russo D, Damante G, Filetti S. Expression, regulation, and function of paired-box gene 8 in the human placenta and placental cancer cell lines. *Endocrinology*. 2005 Sep;146(9):4009-15. Epub 2005 Jun 16. PubMed PMID:15961562.
68. Pines A, Perrone L, Bivi N, Romanello M, Damante G, Gulisano M, Kelley MR, Quadrifoglio F, Tell G. Activation of APE1/Ref-1 is dependent on reactive oxygen species generated after purinergic receptor stimulation by ATP. *Nucleic Acids Res*. 2005 Aug 2;33(14):4379-94. Print 2005. PubMed PMID: 16077024; PubMed Central PMCID: PMC1182699.
69. Puppini C, Pellizzari L, Fabbro D, Fogolari F, Tell G, Tessa A, Santorelli FM, Damante G. Functional analysis of a novel RUNX2 missense mutation found in a family with cleidocranial dysplasia. *J Hum Genet*. 2005;50(12):679-83. Epub 2005 Oct 22. PubMed PMID: 16244783.
70. Salzano AM, Paron I, Pines A, Bachi A, Talamo F, Bivi N, Vascotto C, Damante G, Quadrifoglio F, Scaloni A, Tell G. Differential proteomic analysis of nuclear extracts from thyroid cell lines. *J Chromatogr B Analyt Technol Biomed Life Sci*. 2006 Mar 20;833(1):41-50. Epub 2006 Jan 23. PubMed PMID: 16431169.
71. D'Elia AV, Puppini C, Pellizzari L, Pianta A, Bregant E, Lonigro R, Tell G, Fogolari F, van Heyningen V, Damante G. Molecular analysis of a human PAX6 homeobox mutant. *Eur J Hum Genet*. 2006 Jun;14(6):744-51. PubMed PMID: 16493447.
72. Vascotto C, Cesaratto L, D'Ambrosio C, Scaloni A, Avellini C, Paron I, Baccarani U, Adani GL, Tiribelli C, Quadrifoglio F, Tell G. Proteomic analysis of liver tissues subjected to early ischemia/reperfusion injury during human orthotopic liver transplantation. *Proteomics*. 2006 Jun;6(11):3455-65. PubMed PMID: 16622838.
73. Romanello M, Bivi N, Pines A, Deganuto M, Quadrifoglio F, Moro L, Tell G. Bisphosphonates activate nucleotide receptors signaling and induce the expression of Hsp90 in osteoblast-like cell lines. *Bone*. 2006 Oct;39(4):739-53. Epub 2006 May 12. PubMed PMID: 16697713.
74. Pines A, Bivi N, Vascotto C, Romanello M, D'Ambrosio C, Scaloni A, Damante G, Morisi R, Filetti S, Ferretti E, Quadrifoglio F, Tell G. Nucleotide receptors stimulation by extracellular ATP controls Hsp90 expression through APE1/Ref-1 in thyroid cancer cells: a novel tumorigenic pathway. *J Cell Physiol*. 2006 Oct;209(1):44-55. PubMed PMID: 16741950.
75. Geremia S, Demitri N, Wuerges J, Benedetti F, Berti F, Tell G, Randaccio L. A potent HIV protease inhibitor identified in an epimeric mixture by high-resolution protein crystallography. *ChemMedChem*. 2006 Feb;1(2):186-8. PubMed PMID: 16892350.
76. Tell G, Paron I, Civellini M. Detection of aromatic catabolic gene expression in heterogeneous organic matter used for reduction of volatile organic compounds (VOC) by biofiltration. *Biotechnol Lett*. 2007 Jan;29(1):65-72. Epub 2006 Oct 3. PubMed PMID: 17016674.
77. Vascotto C, Salzano AM, D'Ambrosio C, Fruscalzo A, Marchesoni D, di Loreto C, Scaloni A, Tell G, Quadrifoglio F. Oxidized transthyretin in amniotic fluid as an early marker of preeclampsia. *J Proteome Res*. 2007 Jan;6(1):160-70. PubMed PMID: 17203960.

78. Pacifico F, Paolillo M, Chiappetta G, Crescenzi E, Arena S, Scaloni A, Monaco M, Vascotto C, Tell G, Formisano S, Leonardi A. RbAp48 is a target of nuclear factor-kappaB activity in thyroid cancer. *J Clin Endocrinol Metab.* 2007 Apr;92(4):1458-66. Epub 2007 Jan 23. PubMed PMID: 17244783.
79. Campagnolo M, Pesaresi A, Zelezetsky I, Geremia S, Randaccio L, Bisca A, Tell G. Structural studies on Pax-8 Prd domain/DNA complex. *J Biomol Struct Dyn.* 2007 Apr;24(5):429-41. PubMed PMID: 17313188.
80. Deganuto M, Pittis MG, Pines A, Dominissini S, Kelley MR, Garcia R, Quadrifoglio F, Bembi B, Tell G. Altered intracellular redox status in Gaucher disease fibroblasts and impairment of adaptive response against oxidative stress. *J Cell Physiol.* 2007 Jul;212(1):223-35. PubMed PMID: 17443679.
81. Cesaratto L, Calligaris SD, Vascotto C, Deganuto M, Bellarosa C, Quadrifoglio F, Ostrow JD, Tiribelli C, Tell G. Bilirubin-induced cell toxicity involves PTEN activation through an APE1/Ref-1-dependent pathway. *J Mol Med (Berl).* 2007 Oct;85(10):1099-112. Epub 2007 May 4. PubMed PMID: 17479230.
82. Di Maso V, Avellini C, Crocè LS, Rosso N, Quadrifoglio F, Cesaratto L, Codarin E, Bedogni G, Beltrami CA, Tell G, Tiribelli C. Subcellular localization of APE1/Ref-1 in human hepatocellular carcinoma: possible prognostic significance. *Mol Med.* 2007 Jan-Feb;13(1-2):89-96. PubMed PMID: 17515960; PubMed Central PMCID: PMC1869623.
83. Avellini C, Baccarani U, Trevisan G, Cesaratto L, Vascotto C, D'Aurizio F, Pandolfi M, Adani GL, Tell G. Redox proteomics and immunohistology to study molecular events during ischemia-reperfusion in human liver. *Transplant Proc.* 2007 Jul-Aug;39(6):1755-60. PubMed PMID: 17692604.
84. Grassi F, Tell G, Robbie-Ryan M, Gao Y, Terauchi M, Yang X, Romanello M, Jones DP, Weitzmann MN, Pacifici R. Oxidative stress causes bone loss in estrogen-deficient mice through enhanced bone marrow dendritic cell activation. *Proc Natl Acad Sci U S A.* 2007 Sep 18;104(38):15087-92. Epub 2007 Sep 11. PubMed PMID: 17848519; PubMed Central PMCID: PMC1986617.
85. Marra F, Gastaldelli A, Svegliati Baroni G, Tell G, Tiribelli C. Molecular basis and mechanisms of progression of non-alcoholic steatohepatitis. *Trends Mol Med.* 2008 Feb;14(2):72-81. doi: 10.1016/j.molmed.2007.12.003. Epub 2008 Jan 22. Review. PubMed PMID: 18218340.
86. D'Andrea P, Romanello M, Bicego M, Steinberg TH, Tell G. H(2)O(2) modulates purinergic-dependent calcium signalling in osteoblast-like cells. *Cell Calcium.* 2008 May;43(5):457-68. Epub 2007 Sep 7. PubMed PMID: 17825906.
87. Fantini D, Vascotto C, Deganuto M, Bivi N, Gustincich S, Marcon G, Quadrifoglio F, Damante G, Bhakat KK, Mitra S, Tell G. APE1/Ref-1 regulates PTEN expression mediated by Egr-1. *Free Radic Res.* 2008 Jan;42(1):20-9. doi: 10.1080/10715760701765616. PubMed PMID: 18324520; PubMed Central PMCID: PMC2677450.
88. Bugianesi E, Bellentani S, Bedogni G, Tiribelli C; Fatty Liver Italian Network. Clinical update on non-alcoholic fatty liver disease and steatohepatitis. *Ann Hepatol.* 2008 Apr-Jun;7(2):157-60. PubMed PMID: 18626435.
89. Iannetti A, Pacifico F, Acquaviva R, Lavorgna A, Crescenzi E, Vascotto C, Tell G, Salzano AM, Scaloni A, Vuttariello E, Chiappetta G, Formisano S, Leonardi A. The neutrophil gelatinase-associated lipocalin (NGAL), a NF-kappaB-regulated gene, is a survival factor for thyroid neoplastic cells. *Proc Natl Acad Sci U S A.* 2008 Sep 16;105(37):14058-63. doi: 10.1073/pnas.0710846105. Epub 2008 Sep 3. PubMed PMID: 18768801; PubMed Central PMCID: PMC2544578.
90. Codutti L, van Ingen H, Vascotto C, Fogolari F, Corazza A, Tell G, Quadrifoglio F, Viglino P, Boelens R, Esposito G. The solution structure of DNA-free Pax-8 paired box domain accounts for redox regulation of transcriptional activity in the pax protein family. *J Biol Chem.* 2008 Nov 28;283(48):33321-8. doi: 10.1074/jbc.M805717200. Epub 2008 Sep 30. PubMed PMID: 18829450; PubMed Central PMCID: PMC2662260.
91. Tell G, Quadrifoglio F, Tiribelli C, Kelley MR. The many functions of APE1/Ref-1: not only a DNA repair enzyme. *Antioxid Redox Signal.* 2009 Mar;11(3):601-20. doi: 10.1089/ars.2008.2194. Review. PubMed PMID: 18976116; PubMed Central PMCID: PMC2811080.
92. Zucchelli S, Vilotti S, Calligaris R, Lavina ZS, Biagioli M, Foti R, De Maso L, Pinto M, Gorza M, Speretta E, Casseler C, Tell G, Del Sal G, Gustincich S. Aggresome-forming TTRAP mediates pro-apoptotic properties of Parkinson's disease-associated DJ-1 missense mutations. *Cell Death Differ.* 2009 Mar;16(3):428-38. doi: 10.1038/cdd.2008.169. Epub 2008 Nov 21. PubMed PMID:19023331.
93. Vella V, Puppini C, Damante G, Vigneri R, Sanfilippo M, Vigneri P, Tell G, Frasca F. DeltaNp73alpha inhibits PTEN expression in thyroid cancer cells. *Int J Cancer.* 2009 Jun 1;124(11):2539-48. doi: 10.1002/ijc.24221. PubMed PMID:19173293.
94. Vascotto C, Cesaratto L, Zeef LA, Deganuto M, D'Ambrosio C, Scaloni A, Romanello M, Damante G, Tagliatela G, Delneri D, Kelley MR, Mitra S, Quadrifoglio F, Tell G. Genome-wide analysis and proteomic studies reveal APE1/Ref-1 multifunctional role in mammalian cells. *Proteomics.* 2009 Feb;9(4):1058-74. doi: 10.1002/pmic.200800638. PubMed PMID: 19180539; PubMed Central PMCID: PMC3802553.
95. Scaloni A, Codarin E, Di Maso V, Arena S, Renzone G, Tiribelli C, Quadrifoglio F, Tell G. Modern strategies to identify new molecular targets for the treatment of liver diseases: The promising role of Proteomics and Redox Proteomics investigations. *Proteomics Clin Appl.* 2009 Feb;3(2):242-62. doi: 10.1002/prca.200800169. PubMed PMID: 26238622.
96. Vascotto C, Fantini D, Romanello M, Cesaratto L, Deganuto M, Leonardi A, Radicella JP, Kelley MR, D'Ambrosio C, Scaloni A, Quadrifoglio F, Tell G. APE1/Ref-1 interacts with NPM1 within nucleoli and plays a role in the rRNA quality control process. *Mol Cell Biol.* 2009 Apr;29(7):1834-54. doi:10.1128/MCB.01337-08. Epub 2009 Feb 2. PubMed PMID: 19188445; PubMed Central PMCID: PMC2655621.
97. Bregant E, Renzone G, Lonigro R, Passon N, Di Loreto C, Pandolfi M, Scaloni A, Tell G, Damante G. Down-regulation of SM22/transgelin gene expression during H9c2 cells differentiation. *Mol Cell Biochem.* 2009 Jul;327(1-2):145-52. doi:10.1007/s11010-009-0052-2. Epub 2009 Feb 18. PubMed PMID: 19224337.

98. Codarin E, Renzone G, Poz A, Avellini C, Baccarani U, Lupo F, di Maso V, Crocè SL, Tiribelli C, Arena S, Quadrifoglio F, Scaloni A, Tell G. Differential proteomic analysis of subfractioned human hepatocellular carcinoma tissues. *J Proteome Res.* 2009 May;8(5):2273-84. doi: 10.1021/pr8009275. PubMed PMID: 19290626.
99. Pianta A, Fabbro D, Damiani D, Tiribelli M, Fanin R, Franzoni A, Romanello M, Tell G, Di Loreto C, Damante G. Two novel NPM1 mutations in a therapy-responder AML patient. *Hematol Oncol.* 2010 Sep;28(3):151-5. doi: 10.1002/hon.906. PubMed PMID: 19593743.
100. Damante G, Scaloni A, Tell G. Thyroid tumors: novel insights from proteomic studies. *Expert Rev Proteomics.* 2009 Aug;6(4):363-76. doi: 10.1586/epr.09.51. Review. PubMed PMID: 19681672.
101. Pianta A, Fabbro D, Damiani D, Tiribelli M, Fanin R, Franzoni A, Romanello M, Tell G, Damante G. Unexpected phenotype of a typical NPM1 mutant. *Br J Haematol.* 2009 Dec;147(5):760-3. doi: 10.1111/j.1365-2141.2009.07877.x. Epub 2009 Sep 8. PubMed PMID: 19737150.
102. Tell G, Wilson DM 3rd, Lee CH. Intrusion of a DNA repair protein in the RNome world: is this the beginning of a new era? *Mol Cell Biol.* 2010 Jan;30(2):366-71. doi: 10.1128/MCB.01174-09. Epub 2009 Nov 9. Review. PubMed PMID: 19901076; PubMed Central PMCID: PMC2798471.
103. Bivi N, Romanello M, Harrison R, Clarke I, Hoyle DC, Moro L, Ortolani F, Bonetti A, Quadrifoglio F, Tell G, Delneri D. Identification of secondary targets of N-containing bisphosphonates in mammalian cells via parallel competition analysis of the barcoded yeast deletion collection. *Genome Biol.* 2009;10(9):R93. doi: 10.1186/gb-2009-10-9-r93. Epub 2009 Sep 10. PubMed PMID: 19744312; PubMed Central PMCID: PMC2768982.
104. Tell G, Gustincich S. Redox state, oxidative stress, and molecular mechanisms of protective and toxic effects of bilirubin on cells. *Curr Pharm Des.* 2009;15(25):2908-14. Review. PubMed PMID: 19754367.
105. Marcon G, Tell G, Perrone L, Garbelli R, Quadrifoglio F, Tagliavini F, Giaccone G. APE1/Ref-1 in Alzheimer's disease: an immunohistochemical study. *Neurosci Lett.* 2009 Dec 11;466(3):124-7. doi: 10.1016/j.neulet.2009.09.039. Epub 2009 Sep 25. PubMed PMID: 19782121.
106. Deganuto M, Cesaratto L, Bellarosa C, Calligaris R, Vilotti S, Renzone G, Foti R, Scaloni A, Gustincich S, Quadrifoglio F, Tiribelli C, Tell G. A proteomic approach to the bilirubin-induced toxicity in neuronal cells reveals a protective function of DJ-1 protein. *Proteomics.* 2010 Apr;10(8):1645-57. doi: 10.1002/pmic.200900579. PubMed PMID: 20186750.
107. Scaloni A, Tell G. Mass spectrometry approaches for the redox characterization of protein cysteine residues the case of the transcription factor Pax-8. *Methods Enzymol.* 2010;473:227-50. doi: 10.1016/S0076-6879(10)73012-3. PubMed PMID: 20513481.
108. Tell G, Wilson DM 3rd. Targeting DNA repair proteins for cancer treatment. *Cell Mol Life Sci.* 2010 Nov;67(21):3569-72. doi: 10.1007/s00018-010-0484-6. Epub 2010 Aug 13. Review. PubMed PMID: 20706767; PubMed Central PMCID: PMC2956794.
109. Pianta A, Puppini C, Franzoni A, Fabbro D, Di Loreto C, Bulotta S, Deganuto M, Paron I, Tell G, Puxeddu E, Filetti S, Russo D, Damante G. Nucleophosmin is overexpressed in thyroid tumors. *Biochem Biophys Res Commun.* 2010 Jul 2;397(3):499-504. doi: 10.1016/j.bbrc.2010.05.142. Epub 2010 May 31. PubMed PMID: 20515654.
110. Fantini D, Vascotto C, Marasco D, D'Ambrosio C, Romanello M, Vitagliano L, Pedone C, Poletto M, Cesaratto L, Quadrifoglio F, Scaloni A, Radicella JP, Tell G. Critical lysine residues within the overlooked N-terminal domain of human APE1 regulate its biological functions. *Nucleic Acids Res.* 2010 Dec;38(22):8239-56. doi: 10.1093/nar/gkq691. Epub 2010 Aug 10. PubMed PMID: 20699270; PubMed Central PMCID: PMC3001066.
111. Tell G, Fantini D, Quadrifoglio F. Understanding different functions of mammalian AP endonuclease (APE1) as a promising tool for cancer treatment. *Cell Mol Life Sci.* 2010 Nov;67(21):3589-608. doi: 10.1007/s00018-010-0486-4. Epub 2010 Aug 13. Review. PubMed PMID: 20706766.
112. Santarosa M, Del Col L, Viel A, Bivi N, D'Ambrosio C, Scaloni A, Tell G, Maestro R. BRCA1 modulates the expression of hnRNP2B1 and KHSRP. *Cell Cycle.* 2010 Dec 1;9(23):4666-73. Epub 2010 Dec 1. PubMed PMID: 21099359; PubMed Central PMCID: PMC3048036.
113. Pianta A, Puppini C, Passon N, Franzoni A, Romanello M, Tell G, Di Loreto C, Bulotta S, Russo D, Damante G. Nucleophosmin delocalization in thyroid tumour cells. *Endocr Pathol.* 2011 Mar;22(1):18-23. doi: 10.1007/s12022-011-9147-x. PubMed PMID: 21258971.
114. Bivi N, Picotti P, Müller LN, Romanello M, Moro L, Quadrifoglio F, Tell G. Shotgun proteomics analysis reveals new unsuspected molecular effectors of nitrogen-containing bisphosphonates in osteocytes. *J Proteomics.* 2011 Jun 10;74(7):1113-22. doi: 10.1016/j.jprot.2011.04.002. Epub 2011 Apr 12. PubMed PMID: 21504803.
115. Vascotto C, Bisetto E, Li M, Zeef LA, D'Ambrosio C, Domenis R, Comelli M, Delneri D, Scaloni A, Altieri F, Mavelli I, Quadrifoglio F, Kelley MR, Tell G. Knock-in reconstitution studies reveal an unexpected role of Cys-65 in regulating APE1/Ref-1 subcellular trafficking and function. *Mol Biol Cell.* 2011 Oct;22(20):3887-901. doi: 10.1091/mbc.E11-05-0391. Epub 2011 Aug 24. PubMed PMID: 21865600; PubMed Central PMCID: PMC3192867.
116. Passon N, Gerometta A, Puppini C, Lavarone E, Puglisi F, Tell G, Di Loreto C, Damante G. Expression of Dicer and Drosha in triple-negative breast cancer. *J Clin Pathol.* 2012 Apr;65(4):320-6. doi: 10.1136/jclinpath-2011-200496. Epub 2012 Jan 18. PubMed PMID: 22259182.
117. Li M, Vascotto C, Xu S, Dai N, Qing Y, Zhong Z, Tell G, Wang D. Human AP endonuclease/redox factor APE1/ref-1 modulates mitochondrial function after oxidative stress by regulating the transcriptional activity of NRF1. *Free Radic Biol Med.* 2012 Jul 15;53(2):237-48. doi: 10.1016/j.freeradbiomed.2012.04.002. Epub 2012 May 11. PubMed PMID: 22580151.
118. Poletto M, Di Loreto C, Marasco D, Poletto E, Puglisi F, Damante G, Tell G. Acetylation on critical lysine residues of Apurinic/apyrimidinic endonuclease 1 (APE1) in triple negative breast cancers. *Biochem Biophys Res Commun.* 2012 Jul 20;424(1):34-9. doi: 10.1016/j.bbrc.2012.06.039. Epub 2012 Jun 16. PubMed PMID: 22713458.

119. Lirussi L, Antoniali G, Vascotto C, D'Ambrosio C, Poletto M, Romanello M, Marasco D, Leone M, Quadrifoglio F, Bhakat KK, Scaloni A, Tell G. Nucleolar accumulation of APE1 depends on charged lysine residues that undergo acetylation upon genotoxic stress and modulate its BER activity in cells. *Mol Biol Cell*. 2012 Oct;23(20):4079-96. doi: 10.1091/mbc.E12-04-0299. Epub 2012 Aug 23. PubMed PMID: 22918947; PubMed Central PMCID: PMC3469522.
120. Tell G, Vascotto C, Tiribelli C. Alterations in the redox state and liver damage: hints from the EASL Basic School of Hepatology. *J Hepatol*. 2013 Feb;58(2):365-74. doi: 10.1016/j.jhep.2012.09.018. Epub 2012 Sep 27. Review. PubMed PMID: 23023012.
121. Marasco D, Ruggiero A, Vascotto C, Poletto M, Scognamiglio PL, Tell G, Vitagliano L. Role of mutual interactions in the chemical and thermal stability of nucleophosmin NPM1 domains. *Biochem Biophys Res Commun*. 2013 Jan 11;430(2):523-8. doi: 10.1016/j.bbrc.2012.12.002. Epub 2012 Dec 8. PubMed PMID: 23232117.
122. Poletto M, Vascotto C, Scognamiglio PL, Lirussi L, Marasco D, Tell G. Role of the unstructured N-terminal domain of the hAPE1 (human apurinic/apyrimidinic endonuclease 1) in the modulation of its interaction with nucleic acids and NPM1 (nucleophosmin). *Biochem J*. 2013 Jun 15;452(3):545-57. doi: 10.1042/BJ20121277. PubMed PMID: 23544830.
123. Vascotto C, Lirussi L, Poletto M, Tiribelli M, Damiani D, Fabbro D, Damante G, Demple B, Colombo E, Tell G. Functional regulation of the apurinic/apyrimidinic endonuclease 1 by nucleophosmin: impact on tumor biology. *Oncogene*. 2014 May 29;33(22):2876-87. doi: 10.1038/onc.2013.251. Epub 2013 Jul 8.
124. Antoniali G, Lirussi L, Poletto M, Tell G. Emerging roles of the nucleolus in regulating the DNA damage response: the noncanonical DNA repair enzyme APE1/Ref-1 as a paradigmatic example. *Antioxid Redox Signal*. 2014 Feb 1;20(4):621-39. doi:10.1089/ars.2013.5491. Epub 2013 Sep 21. Review. PubMed PMID: 23879289; PubMed Central PMCID: PMC3901381.
125. Cesaratto L, Codarin E, Vascotto C, Leonardi A, Kelley MR, Tiribelli C, Tell G. Specific inhibition of the redox activity of ape1/ref-1 by e3330 blocks tnf- α -induced activation of IL-8 production in liver cancer cell lines. *PLoS One*. 2013 Aug 15;8(8):e70909. doi: 10.1371/journal.pone.0070909. eCollection 2013. PubMed PMID: 23967134; PubMed Central PMCID: PMC3744539.
126. Tell G, Di Piazza M, Kamocka MM, Vascotto C. Combining RNAi and in vivo confocal microscopy analysis of the photoconvertible fluorescent protein Dendra2 to study a DNA repair protein. *Biotechniques*. 2013 Oct;55(4):198-203. doi:10.2144/000114088. PubMed PMID: 24107251.
127. Mantha AK, Sarkar B, Tell G. A short review on the implications of base excision repair pathway for neurons: relevance to neurodegenerative diseases. *Mitochondrion*. 2014 May;16:38-49. doi: 10.1016/j.mito.2013.10.007. Epub 2013 Nov 9. Review. PubMed PMID: 24220222.
128. Antoniali G, Lirussi L, D'Ambrosio C, Dal Piaz F, Vascotto C, Casarano E, Marasco D, Scaloni A, Fogolari F, Tell G. SIRT1 gene expression upon genotoxic damage is regulated by APE1 through nCaRE-promoter elements. *Mol Biol Cell*. 2014 Feb;25(4):532-47. doi: 10.1091/mbc.E13-05-0286. Epub 2013 Dec 19. PubMed PMID:24356447; PubMed Central PMCID: PMC3923644.
129. Poletto M, Lirussi L, Wilson DM 3rd, Tell G. Nucleophosmin modulates stability, activity, and nucleolar accumulation of base excision repair proteins. *Mol Biol Cell*. 2014 May;25(10):1641-52. doi: 10.1091/mbc.E13-12-0717. Epub 2014 Mar 19. PubMed PMID: 24648491; PubMed Central PMCID: PMC4019495.
130. Londero AP, Orsaria M, Tell G, Marzinotto S, Capodicasa V, Poletto M, Vascotto C, Sacco C, Mariuzzi L. Expression and prognostic significance of APE1/Ref-1 and NPM1 proteins in high-grade ovarian serous cancer. *Am J Clin Pathol*. 2014 Mar;141(3):404-14. doi: 10.1309/AJCPIDKDLSE26CX. PubMed PMID:24515769.
131. Scognamiglio PL, Di Natale C, Leone M, Poletto M, Vitagliano L, Tell G, Marasco D. G-quadruplex DNA recognition by nucleophosmin: new insights from protein dissection. *Biochim Biophys Acta*. 2014 Jun;1840(6):2050-9. doi:10.1016/j.bbagen.2014.02.017. Epub 2014 Feb 24. PubMed PMID: 24576674.
132. Domenis R, Bergamin N, Gianfranceschi G, Vascotto C, Romanello M, Rigo S, Vagnarelli G, Faggiani M, Parodi P, Kelley MR, Beltrami CA, Cesselli D, Tell G, Beltrami AP. The redox function of APE1 is involved in the differentiation process of stem cells toward a neuronal cell fate. *PLoS One*. 2014 Feb 19;9(2):e89232. doi: 10.1371/journal.pone.0089232. eCollection 2014. PubMed PMID:24586617; PubMed Central PMCID: PMC3929656.
133. Grasso S, Tell G. Base excision repair in Archaea: back to the future in DNA repair. *DNA Repair (Amst)*. 2014 Sep;21:148-57. doi: 10.1016/j.dnarep.2014.05.006. Epub 2014 Jul 9. Review. PubMed PMID: 25012975.
134. Bravard A, Auvré F, Fantini D, Bernardino-Sgherri J, Sissoëff L, Daynac M, Xu Z, Etienne O, Dehen C, Comoy E, Boussin FD, Tell G, Deslys JP, Radicella JP. The prion protein is critical for DNA repair and cell survival after genotoxic stress. *Nucleic Acids Res*. 2015 Jan;43(2):904-16. doi: 10.1093/nar/gku1342. Epub 2014 Dec 24. PubMed PMID: 25539913; PubMed Central PMCID: PMC4333392.
135. Tell G, Demple B. Base excision DNA repair and cancer. *Oncotarget*. 2015 Jan 20;6(2):584-5. PubMed PMID: 25655644; PubMed Central PMCID: PMC4359237.
136. Thakur S, Dhiman M, Tell G, Mantha AK. A review on protein-protein interaction network of APE1/Ref-1 and its associated biological functions. *Cell Biochem Funct*. 2015 Apr;33(3):101-12. doi: 10.1002/cbf.3100. Epub 2015 Mar 19. Review. PubMed PMID: 25790058.
137. Poletto M, Malfatti MC, Dorjsuren D, Scognamiglio PL, Marasco D, Vascotto C, Jadhav A, Maloney DJ, Wilson DM 3rd, Simeonov A, Tell G. Inhibitors of the apurinic/apyrimidinic endonuclease 1 (APE1)/nucleophosmin (NPM1) interaction that display anti-tumor properties. *Mol Carcinog*. 2016 May;55(5):688-704. doi:10.1002/mc.22313. Epub 2015 Apr 11. PubMed PMID: 25865359; PubMed Central PMCID: PMC4600639.

138. Bortolussi G, Codarin E, Antoniali G, Vascotto C, Vodret S, Arena S, Cesaratto L, Scaloni A, Tell G, Muro AF. Impairment of enzymatic antioxidant defenses is associated with bilirubin-induced neuronal cell death in the cerebellum of Ugt1 KO mice. *Cell Death Dis.* 2015 May 7;6:e1739. doi:10.1038/cddis.2015.113. PubMed PMID: 25950469; PubMed Central PMCID: PMC4669693.
139. Barchiesi A, Wasilewski M, Chacinska A, Tell G, Vascotto C. Mitochondrial translocation of APE1 relies on the MIA pathway. *Nucleic Acids Res.* 2015 Jun 23;43(11):5451-64. doi: 10.1093/nar/gkv433. Epub 2015 May 8. PubMed PMID:25956655; PubMed Central PMCID: PMC4477663.
140. Antoniali G, Marcuzzi F, Casarano E, Tell G. Cadmium treatment suppresses DNA polymerase δ catalytic subunit gene expression by acting on the p53 and Sp1 regulatory axis. *DNA Repair (Amst).* 2015 Nov;35:90-105. doi:10.1016/j.dnarep.2015.08.007. Epub 2015 Oct 19. PubMed PMID: 26519823.
141. Di Maso V, Mediavilla MG, Vascotto C, Lupo F, Baccarani U, Avellini C, Tell G, Tiribelli C, Crocè LS. Transcriptional Up-Regulation of APE1/Ref-1 in Hepatic Tumor: Role in Hepatocytes Resistance to Oxidative Stress and Apoptosis. *PLoS One.* 2015 Dec 1;10(12):e0143289. doi: 10.1371/journal.pone.0143289. eCollection 2015. PubMed PMID: 26624999; PubMed Central PMCID: PMC4666459.
142. Lirussi L, Antoniali G, D'Ambrosio C, Scaloni A, Nilsen H, Tell G. APE1 polymorphic variants cause persistent genomic stress and affect cancer cell proliferation. *Oncotarget.* 2016 May 3;7(18):26293-306. doi:10.18632/oncotarget.8477. PubMed PMID: 27050370; PubMed Central PMCID:PMC5041981.
143. Londero AP, Orsaria M, Marzinotto S, Grassi T, Fruscalzo A, Calcagno A, Bertozzi S, Nardini N, Stella E, Lellé RJ, Driul L, Tell G, Mariuzzi L. Placental aging and oxidation damage in a tissue micro-array model: an immunohistochemistry study. *Histochem Cell Biol.* 2016 Aug;146(2):191-204. doi:10.1007/s00418-016-1435-6. Epub 2016 Apr 22. PubMed PMID: 27106773.
144. Marcuzzi F, Zucchelli S, Bertuzzi M, Santoro C, Tell G, Carninci P, Gustincich S. Isoforms of the Erythropoietin receptor in dopaminergic neurons of the Substantia Nigra. *J Neurochem.* 2016 Nov;139(4):596-609. doi: 10.1111/jnc.13757. Epub 2016 Sep 30. PubMed PMID: 27488413.
145. Scognamiglio PL, Di Natale C, Leone M, Cascella R, Cecchi C, Lirussi L, Antoniali G, Riccardi D, Morelli G, Tell G, Chiti F, Marasco D. Destabilisation, aggregation, toxicity and cytosolic mislocalisation of nucleophosmin regions associated with acute myeloid leukemia. *Oncotarget.* 2016 Sep 13;7(37):59129-59143. doi: 10.18632/oncotarget.10991. PubMed PMID: 27494862; PubMed Central PMCID: PMC5312300.
146. Sandomenico A, Focà A, Sanguigno L, Caporale A, Focà G, Pignalosa A, Corvino G, Caragnano A, Beltrami AP, Antoniali G, Tell G, Leonardi A, Ruvo M. Monoclonal antibodies against pools of mono- and polyacetylated peptides selectively recognize acetylated lysines within the context of the original antigen. *MAbs.* 2016 Nov/Dec;8(8):1575-1589. Epub 2016 Aug 25. PubMed PMID: 27560983; PubMed Central PMCID: PMC5098450.
147. Zhang S, He L, Dai N, Guan W, Shan J, Yang X, Zhong Z, Qing Y, Jin F, Chen C, Yang Y, Wang H, Baugh L, Tell G, Wilson DM 3rd, Li M, Wang D. Serum APE1 as a predictive marker for platinum-based chemotherapy of non-small cell lung cancer patients. *Oncotarget.* 2016 Nov 22;7(47):77482-77494. doi: 10.18632/oncotarget.13030. PubMed PMID: 27813497; PubMed Central PMCID:PMC5340230.
148. Barchiesi A, Baccarani U, Billack B, Tell G, Vascotto C. [Letter to the Editor] Isolation of mitochondria is necessary for precise quantification of mitochondrial DNA damage in human carcinoma samples. *Biotechniques.* 2017 Jan 1;62(1):13-17. doi: 10.2144/000114491. PubMed PMID: 28118811.
149. Cesselli D, Aleksova A, Sponga S, Cervellin C, Di Loreto C, Tell G, Beltrami AP. Cardiac Cell Senescence and Redox Signaling. *Front Cardiovasc Med.* 2017 May 29;4:38. doi: 10.3389/fcvm.2017.00038. eCollection 2017. Review. PubMed PMID:28612009; PubMed Central PMCID: PMC5447053.
150. Antoniali G, Malfatti MC, Tell G. Unveiling the non-repair face of the Base Excision Repair pathway in RNA processing: A missing link between DNA repair and gene expression? *DNA Repair (Amst).* 2017 Aug;56:65-74. doi:10.1016/j.dnarep.2017.06.008. Epub 2017 Jun 9. Review. PubMed PMID: 28629776.
151. Pekhale K, Haval G, Perween N, Antoniali G, Tell G, Ghaskadbi S, Ghaskadbi S. DNA repair enzyme APE1 from evolutionarily ancient Hydra reveals redox activity exclusively found in mammalian APE1. *DNA Repair (Amst).* 2017 Nov;59:44-56. doi: 10.1016/j.dnarep.2017.09.005. Epub 2017 Sep 18. PubMed PMID: 28946035.
152. Malfatti MC, Balachander S, Antoniali G, Koh KD, Saint-Pierre C, Gasparutto D, Chon H, Crouch RJ, Storic F, Tell G. Abasic and oxidized ribonucleotides embedded in DNA are processed by human APE1 and not by RNase H2. *Nucleic Acids Res.* 2017 Nov 2;45(19):11193-11212. doi: 10.1093/nar/gkx723. PubMed PMID:28977421; PubMed Central PMCID: PMC5737539.
153. Antoniali G, Serra F, Lirussi L, Tanaka M, D'Ambrosio C, Zhang S, Radovic S, Dalla E, Ciani Y, Scaloni A, Li M, Piazza S, Tell G. Mammalian APE1 controls miRNA processing and its interactome is linked to cancer RNA metabolism. *Nat Commun.* 2017 Oct 6;8(1):797. doi: 10.1038/s41467-017-00842-8. PubMed PMID:28986522; PubMed Central PMCID: PMC5630600.
154. Zaky A, Bouali-Benazzouz R, Favereaux A, Tell G, Landry M. APE1/Ref-1 redox function contributes to inflammatory pain sensitization. *Exp Neurol.* 2018 Sep;307:1-11. doi: 10.1016/j.expneurol.2018.05.014. Epub 2018 May 14. PubMed PMID: 29772245.
155. Yang X, Peng Y, Jiang X, Lu X, Duan W, Zhang S, Dai N, Shan J, Feng Y, Li X, Cheng Y, Yang Y, Baugh L, Tell G, Wang D, Li M. The regulatory role of APE1 in epithelial-to-mesenchymal transition and in determining EGFR-TKI responsiveness in non-small-cell lung cancer. *Cancer Med.* 2018 Aug 14. doi: 10.1002/cam4.1717. [Epub ahead of print] PubMed PMID: 30109782.
156. Troisi RI, Vanlander A, Giglio MC, Van Limmen J, Scudeller L, Heyse B, De Baerdemaeker L, Croo A, Voet D, Praet M, Hoorens A, Antoniali G, Codarin E, Tell G, Reynaert H, Colle I, Sainz-Barriga M. Somatostatin as Inflow Modulator in Liver-transplant Recipients With Severe Portal Hypertension: A Randomized Trial. *Ann Surg.* 2018 Sep 21. doi: 10.1097/SLA.0000000000003062.

157. Burra S, Marasco D, Malfatti MC, Antoniali G, Virgilio A, Esposito V, Demple B, Galeone A, Tell G. Human AP-endonuclease (Ape1) activity on telomeric G4 structures is modulated by acetyltable lysine residues in the N-terminal sequence. *DNA Repair (Amst)*. 2019 Jan;73:129-143.
158. Pascut, D., Sukowati, C.H.C., Antoniali, G., Mangiapane, G., Burra, S., Mascaretti, L.G., Buonocore, M.R., Crocè, L.S., Tiribelli, C., Tell, G. Serum AP-endonuclease 1 (sAPE1) as novel biomarker for hepatocellular carcinoma (2019) *Oncotarget*, 10 (3), pp. 383-394.
159. Frossi B, Antoniali G, Yu K, Akhtar N, Kaplan MH, Kelley MR, Tell G*, Pucillo CEM. Endonuclease and redox activities of human apurinic/apyrimidinic endonuclease 1 have distinctive and essential functions in IgA class switch recombination. *J Biol Chem*. 2019 Mar 29;294(13):5198-5207. doi: 10.1074/jbc.RA118.006601. Epub 2019 Jan 31. PubMed PMID: 30705092; PubMed Central PMCID: PMC6442068. *co-corresponding author.
160. Garutti M, Pelizzari G, Bartoletti M, Malfatti MC, Gerratana L, Tell G, Puglisi F. Platinum Salts in Patients with Breast Cancer: A Focus on Predictive Factors. *Int J Mol Sci*. 2019 Jul 10;20(14). pii: E3390. doi: 10.3390/ijms20143390. Review. PubMed PMID: 31295913.
161. Malfatti MC, Henneke G, Balachander S, Koh KD, Newnam G, Uehara R, Crouch RJ, Storici F, Tell G. Unlike the E. coli counterpart, archaeal RNase HII cannot process ribose monophosphate abasic sites and oxidized ribonucleotides embedded in DNA. *J Biol Chem*. 2019 Jul 12. pii: jbc.RA119.009493. doi:10.1074/jbc.RA119.009493. [Epub ahead of print] PubMed PMID: 31300556.
162. Malfatti MC, Gerratana L, Dalla E, Isola M, Damante G, Di Loreto C, Puglisi F, Tell G. APE1 and NPM1 protect cancer cells from platinum compounds cytotoxicity and their expression pattern has a prognostic value in TNBC. *J Exp Clin Cancer Res*. 2019 Jul 15;38(1):309. doi: 10.1186/s13046-019-1294-9. PubMed PMID: 31307523; PubMed Central PMCID: PMC6631760.
163. Codrich M, Comelli M, Malfatti MC, Mio C, Ayyildiz D, Zhang C, Kelley MR, Terrosu G, Pucillo CEM, Tell G. Inhibition of APE1-endonuclease activity affects cell metabolism in colon cancer cells via a p53-dependent pathway. *DNA Repair (Amst)*. 2019 Oct;82:102675. doi: 10.1016/j.dnarep.2019.102675. Epub 2019 Aug 7. PubMed PMID: 31450087; PubMed Central PMCID: PMC7092503.
164. Malfatti MC, Antoniali G, Codrich M, Burra S, Mangiapane G, Dalla E, Tell G. New perspectives in cancer biology from a study of canonical and non-canonical functions of base excision repair proteins with a focus on early steps. *Mutagenesis*. 2020 Feb 13;35(1):129-149. doi: 10.1093/mutage/gez051. PubMed PMID: 31858150.
165. Ayyildiz D, Antoniali G, D'Ambrosio C, Mangiapane G, Dalla E, Scaloni A, Tell G, Piazza S. Architecture of The Human Ape1 Interactome Defines Novel Cancers Signatures. *Sci Rep*. 2020 Jan 8;10(1):28. doi: 10.1038/s41598-019-56981-z. PubMed PMID: 31913336; PubMed Central PMCID: PMC6949240.
166. Lirussi L, Antoniali G, Scognamiglio PL, Marasco D, Dalla E, D'Ambrosio C, Arena S, Scaloni A, Tell G. Cleavage of the APE1 N-Terminal Domain in Acute Myeloid Leukemia Cells Is Associated with Proteasomal Activity. *Biomolecules*. 2020 Mar 31;10(4). pii: E531. doi: 10.3390/biom10040531. PubMed PMID: 32244430.
167. Do HQ, Luong AB, Bonazza D, Bottin C, Doan TP, Tran LD, Truong NH, Tell G, Pham HL, Tiribelli C, Sukowati CH. Differential capacity of CD90+ cells in autophagy activation following chemotherapy in hepatocellular carcinoma. *Ann Hepatol*. 2020 Jul 31:S1665-2681(20)30080-6. doi: 10.1016/j.aohep.2020.07.007. PMID: 32745631
168. Tosolini D, Antoniali G, Dalla E., Tell G. Role of phase partitioning in coordinating DNA damage response: focus on the Apurinic Apyrimidinic Endonuclease 1 interactome. *BioMol Concepts* 2020; 11: 209–22
169. Mangiapane G, Parolini I, Conte K, Malfatti MC, Corsi J, Sanchez M, Pietrantonio A, D'Agostino VG, Tell G. Enzymatically active apurinic/apyrimidinic endodeoxyribonuclease 1 is released by mammalian cells through exosomes. *J Biol Chem*. 2021 Mar 19;296:100569. doi: 10.1016/j.jbc.2021.100569. Online ahead of print.PMID: 33753167
170. Malfatti MC, Antoniali G, Codrich M, Tell G. Coping with RNA damage with a focus on APE1, a BER enzyme at the crossroad between DNA damage repair and RNA processing/decay. *DNA Repair (Amst)*. 2021 May 13;104:103133. doi: 10.1016/j.dnarep.2021.103133. Online ahead of print.PMID: 34049077
171. Codrich M, Dalla E, Mio C, Antoniali G, Malfatti MC, Marzinotto S, Pierobon M, Baldelli E, Di Loreto C, Damante G, Terrosu G, Pucillo CEM, Tell G. Integrated multi-omics analyses on patient-derived CRC organoids highlight altered molecular pathways in colorectal cancer progression involving PTEN. *J Exp Clin Cancer Res*. 2021 Jun 21;40(1):198. doi: 10.1186/s13046-021-01986-8.PMID: 34154611
172. Kaur S, Verma H, Dhiman M, Tell G, Gigli GL, Janes F, Mantha AK. Brain Exosomes: Friend or Foe in Alzheimer's Disease? *Mol Neurobiol*. 2021 Dec;58(12):6610-6624. doi: 10.1007/s12035-021-02547-y. Epub 2021 Sep 30.
173. Antoniali G, Dalla E, Mangiapane G, Zhao X, Jing X, Cheng Y, De Sanctis V, Ayyildiz D, Piazza S, Li M, Tell G. APE1 controls DICER1 expression in NSCLC through miR-33a and miR-130b. *Cell Mol Life Sci*. 2022 Jul 25;79(8):446. doi: 10.1007/s00018-022-04443-7.
174. Beltrami AP, De Martino M, Dalla E, Malfatti MC, Caponnetto F, Codrich M, Stefanizzi D, Fabris M, Sozio E, D'Aurizio F, Pucillo CEM, Sechi LA, Tascini C, Curcio F, Foresti GL, Piciarelli C, De Nardin A, Tell G*, Isola M. Combining Deep Phenotyping of Serum Proteomics and Clinical Data via Machine Learning for COVID-19 Biomarker Discovery. *Int J Mol Sci*. 2022 Aug 15;23(16):9161. doi: 10.3390/ijms23169161. *co-corresponding author
175. Lirussi L, Ayyildiz D, Liu Y, Montaldo NP, Carracedo S, Aure MR, Jobert L, Tekpli X, Touma J, Sauer T, Dalla E, Kristensen VN, Geisler J, Piazza S, Tell G, Nilsen H. A regulatory network comprising let-7 miRNA and SMUG1 is associated with good prognosis in ER+ breast tumours. *Nucleic Acids Res*. 2022 Oct 14;50(18):10449-10468. doi: 10.1093/nar/gkac807.

176. Codrich M, Degrassi M, Malfatti MC, Antoniali G, Gorassini A, Ayyildiz D, De Marco R, Verardo G, Tell G. APE1 interacts with the nuclear exosome complex protein MTR4 and is involved in cisplatin- and 5-fluorouracil-induced RNA damage response. FEBS J. 2022 Oct 30. doi: 10.1111/febs.16671.

B. Book Chapters

- Tell G., Early molecular events during response to oxidative stress in human cells by differential proteomics in 'Redox Proteomics' Editors I. Dalle Donne, A. Scaloni, A. Butterfield, WILEY 2006
- Vascotto C., Poletto M. and Tell G., Understanding the basics for translating the Base Excision Repair pathway from benchtop to bedside in cancer therapy in 'DNA repair in cancer therapy' 2nd Ed., Edited by M.R. Kelley and M. Fishel, Academic Press, 2016
- Poletto M., Lirussi L., Antoniali G. and Tell G. The Abasic Endonuclease APE1: Much More Than a DNA Repair Enzyme in "The Base Excision Repair Pathway Molecular Mechanisms and Role in Disease Development and Therapeutic Design" Edited by David M Wilson III,

Memberships and Assignments

Institutional assignments

- *Academic Years 2010-2012: Representative of Associate Professors in Academic Senate of the University of Udine;*
- *Academic Years 2009-2012: Member of the Teaching Commission for the Degree in Biotechnologies of the University of Udine;*
- *Academic Years 2012-2018: Director of the B.Sc. in Biotechnologies of the University of Udine;*
- *From 2010-present, Head of the Laboratory of Molecular Biology and DNA repair of the Department of Medicine at the University of Udine, Italy;*
- *From October 2015-October 2019, member of the Technology Transfer Commission of the University of Udine, Italy;*
- *Academic Years: 2014-present: Representative of the Rector of the University of Udine within the "Consortium of Molecular Biomedicine" of the Regione Friuli Venezia Giulia (CBM S.c.r.l. <http://www.cbm.fvg.it>);*
- *From 2017-present: Deputy of Research of the Department of Medicine, University of Udine;*
- *From January 2018-present: member of the Scientific Committee for the organization of ESOF2020 (<https://www.euroscience.org/tag/esof-2020/> and <http://www.proesof2020.eu/>).*
- *From October 2019-present: Deputy Director of the Department of Medicine of the University of Udine*

Professional memberships

- *From 2000-present American Association for Biochemistry and Molecular Biology (ASBMB)*
- *From 2000-present Italian Society for Biochemistry and Molecular Biology (SIB)*
- *2003-2008 American Society for Bone and Mineral Research (ASBMR)*
- *2004 Human Proteome Organization (HUPO)*
- *From 2004-present Italian Human Proteome Organization (IHUPO)*
- *2011-2015 Visiting Research Scholar at Stonybrook University, Stonybrook, NY-USA*

- From 2014-2020, Member of the Scientific Board of the Italian Research Cancer Association (AIRC)
- From 2015-present, Member of the Scientific Board of the Fondazione Italiana Fegato, FIF-ONLUS, Trieste, Italy

Positions and Honors

- Academic Years 1988-1992 Laurea in Biological Sciences at the University of Trieste, Italy, Magna cum Laude on March 13th 1993.
- 1993 – 1994 Research Scientist (Postgraduate fellow) supported by Oncological Research Center (C.R.O.) Aviano, PN, Italy
- Research assistant (tenure track), April 1995-March 2000, Department of Biomedical Sciences and Technologies, School of Medicine, University of Udine, Italy;
- 1996, visiting scientist in the lab of Dr. David Segal, Experimental Immunology Branch, Division of Basic Sciences, NCI, NIH, Bethesda (MD) USA;
- March 2000-September 2003, Assistant Professor (tenure track) of Molecular Biology, Department of Biochemistry, Biophysics and Macromolecular Chemistry, School of Medicine, University of Trieste, Italy;
- September 2003-October 2005, Assistant Professor (tenure track) of Molecular Biology, Department of Biomedical Sciences and Technologies, School of Medicine, University of Udine, Italy;
- June-August 2006, Visiting Professor in the lab of Prof. Sankar Mitra. School of Medicine-Sealy Center For Molecular Science And Department Of Human Biological Chemistry And Genetics. University of Texas, Galveston, TX, USA;
- July 2009, Visiting Professor in the lab of Prof. Pablo Radicella. CEA, Institut de Radiobiologie Cellulaire et Moléculaire, UMR217 CNRS, F-92265 Fontenay-aux-Roses, France;
- From 2010-present, Head of the Laboratory of Molecular Biology and DNA repair of the Department of Medicine at the University of Udine, Italy (Web site: <https://gianluocatell.wixsite.com/labtell>);
- July-September 2011, Visiting Research Scholar in the lab of Prof. Bruce Dimple. Department of Pharmacological Sciences, Stony Brook University, Stony Brook, NY, USA;
- From November 2012-September 2018, he is Director of the B.Sc. of Biotechnology at the University of Udine, Italy;
- From November 2005-December 2010, he is Associate Professor (tenure track) of Molecular Biology, at the Department of Biomedical Sciences and Technologies, School of Medicine, University of Udine, Udine, Italy;
- from January 2011-December 2016 he is Associate Professor (tenure track) of Molecular Biology, at the Department of Medical and Biological Sciences, School of Medicine, University of Udine, Udine, Italy;
- 12/02/2014, winner of the national habilitation competition as Full Professor in Biochemistry (BIO/10) and in Molecular Biology (BIO/11);
- From 25th October 2015 to 30th September 2019, he is member of the Technology Transfer Commission of the University of Udine, Italy;
- from January 2017- November 2018 he is Associate Professor (tenure track) of Molecular Biology, at the Department of Medicine, University of Udine, Udine, Italy;

- *From October 2017-present he is Deputy of the Head of the Department of Medicine for Research, at the Department of Medicine, University of Udine, Udine, Italy;*
- *From December 2018-present he is Full Professor (tenure track) of Molecular Biology, at the Department of Medicine, University of Udine, Udine, Italy.*

Others:

- *1994 (January) -1995 (May) Second lieutenant, Italian Army, anti-aircraft artillery, Sabaudia (Rome) and 5th Regiment "A. Pe. Cam. Superga" of Artillery in Udine, Italy*
- *1997 – 1998 Teaching assistant, Biochemical and Molecular Gene Expression Techniques, Department of Biomedical Sciences and Technologies, Udine University Medical School, Udine – Italy*

I authorize the processing of my personal data pursuant to art. 13 Legislative Decree 196 of 30 June 2003 – “Personal data protection code” and art. 13 GDPR 679/16 – “European regulation on the protection of personal data”

24/03/2023