

Curriculum Vitae

Personal Data

Full Name:	Panayotis Zacharatos
Birth data (date, place):	21/04/72, Athens
Nationality:	Hellenic
Military Obligations:	Fulfilled
Civil Status:	Married, 2 children
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Education

Undergraduate studies

- Studies in Biological Sciences, Athens University (9/1992- 10/1996). Degree in Biology (BSc) (11/1996).
- Studies in Medicine, Athens University (12/1996- 11/2006). Degree in Medicine (MD) (12/2006).

Postgraduate studies

- PhD thesis in Medical School of Athens in Molecular Carcinogenesis (12/1996- 5/2001).

Academic titles

Doctor of Philosophy in Molecular Medicine (5/2001).

Professional Experience

- Undergraduate training in Molecular Biology- IAESTE programme, Lab B Biochemistry and Cell Biology Dept., Bergen Norway (c/o Assist. Prof. A.Vedeler) (8/1994- 10/1994).
- Diplomatic thesis in Lab. Of Molecular Oncology and Biotechnology, IBRB, National Hellenic research Foundation, Athens, Greece (Director: Prof. Dr D. Spandidos) (7/1995- 3/1996).
- Research assistant in Lab. of Histology-Embryology, School of Medicine, Athens University (Director: Prof. Dr Ch. Kittas) (6/1997- 5/2001).
- Research associate in Lab. of Histology-Embryology, School of Medicine, Athens University (Director: Prof. Dr Ch. Kittas) (6/2001- 11/2004).
- Research collaborator in "Roy Castle Institute for Lung Cancer Research", Liverpool, UK. (Director: Prof. J.K.Field) (2/1999- 3/2004).
- Biologist in the Microbiological Dept. of Military Hospitals during my military service (11/2001- 11/2002).
- Scientific visitor in Department of Molecular Oncology, The Wistar Institute. Philadelphia, USA. (Director: Prof. T.D. Halazonetis) (4/2004- 6/2004).
- Research associate of Thorax Foundation and C.A.B.E.R. of Emergency Unit of Evangelismos Hospital , Medical school of Athens (Director: Prof. Dr Ch. Roussos) (3/2007- to date).
- Molecular Biologist in Molecular Diagnostic Dept. of 1st Hospital of Social Security Institute, Athens (7/2008- to date).
- Lecturer in Applied Molecular Biology at Dept. of Medical Laboratories of TEI Athens (10/2009- 2/2012).
- Residency in Pulmonary Medicine at the Pulmonary Clinic of ICU, Evangelismos Hospital, Athens. (07/2011- to date)
- Assist Prof in Cell Molecular Biology at Dept. of Medical Laboratories of TEI Athens (3/2012- to date).

Scholarships

- Undergraduate scholarship by University of Athens (1993-96).
- Postgraduate scholarship by G.S.R.T (Ministry of Industries & Development) (1998-2000).
- Postdoctoral scholarship by State Scholarships Foundation (2002-2003).

Research interests

- Cancer Cell Biology
- Cancer Genetic Instability
- Cancer Cell kinetics
- Cancer neoangiogenesis
- Cancer Immunology
- Lung Cancer Biology (histology, molecular biology)
- Breast Cancer Biology (histology, molecular biology)
- Bladder Cancer Biology (histology, molecular biology)
- Colon Cancer Biology (histology, molecular biology)
- Oesophagus and Stomach Cancer Biology (histology, molecular biology)
- Lymphomas Biology
- Diagnosis and implication of HPV, EBV, HP in Cancer History
- Molecular pathways and Cancer Chemotherapy
- Immunoresponse in COPD
- The Immune Response to Resistive Breathing
- The Role of Oxidative Stress to Resistive Breathing
- The Role of Nitric Oxide to Resistive Breathing
- The Angiogenic Response to Resistive Breathing
- Respiratory System Injury to Resistive Breathing
- Effects of Resistive Breathing on Cell Death, Tissue Injury and Regeneration of Diaphragm and Lung

Publications

Citations: **2413 (ISI Web, 1/2014)**

1. Gorgoulis VG, Zacharatos PV, Manolis E, Ikonomopoulos JA, Damalas A, Lamprinopoulos C, Rassidakis GZ, Zoumpourlis V, Kotsinas A, Rassidakis AN, Halazonetis TD, Kittas C. Effects of p53 mutants derived from lung carcinomas on the p53-responsive element (p53RE) of the MDM2 gene. *Br J Cancer* 1998; **77**: 374-384.
2. Ikonomopoulos JA, Gorgoulis VG, Zacharatos PV, Kotsinas A, Tsoi E, Karameris A, Panagou P, Kittas C. Multiplex PCR assay for the detection of mycobacterial DNA sequences directly from sputum. *In Vivo* 1998; **12**: 547-552.
3. Gorgoulis VG, Zacharatos P, Kotsinas A, Liloglou T, Kyroudi A, Veslemes M, Rassidakis A, Halazonetis TD, Field JK, Kittas C. Alterations of the p16-pRb pathway and the chromosome locus 9p21-22 in non-small-cell lung carcinomas: relationship with p53 and MDM2 protein expression. *Am J Pathol* 1998; **153**: 1749-1765.
4. Gorgoulis VG, Koutroumbi EN, Kotsinas A, Zacharatos P, Markopoulos C, Giannikos L, Kyriakou V, Voulgaris Z, Gogas I, Kittas C. Alterations of p16-pRb pathway and chromosome locus 9p21-22 in sporadic invasive breast carcinomas. *Mol Med* 1998; **4**: 807-822.
5. Kotsinas A, Gorgoulis V, Zacharatos P, Zioris H, Triposkiadis F, Donta I, Kyriakidis M, Karayannacos P, Kittas C. Antioxidant agent nimesulid and beta-blocker metoprolol do not exert protective effects against rat mitochondrial DNA alterations in adriamycin-induced cardiotoxicity. *Biochem Biophys Res Commun* 1999; **254**: 651-656.

6. Gorgoulis VG, Zacharatos P, Kotsinas A, Kyroudi A, Rassidakis AN, Ikonomopoulos JA, Barbatis C, Herrington CS, Kittas C. Human papilloma virus (HPV) is possibly involved in laryngeal but not in lung carcinogenesis. *Hum Pathol* 1999; **30**: 274-283.
7. Zacharatos PV, Gorgoulis VG, Kotsinas A, Manolis EN, Liloglou T, Rassidakis AN, Kanavaros P, Field JD, Halazonetis T, Kittas C. Modulation of wild-type p53 activity by mutant p53 R273H depends on the p53 responsive element (p53RE). A comparative study between the p53REs of the MDM2, WAF1/Cip1 and Bax genes in the lung cancer environment. WAF1/Cip1 = WAF1/Cip1. *Anticancer Res* 1999; **19**: 579-587.
8. Spanakis NE, Gorgoulis V, Mariatos G, Zacharatos P, Kotsinas A, Garinis G, Trigidou R, Karameris A, Tsimara-Papastamatiou H, Kouloukousa M, Manolis EN, Kittas C. Aberrant p16 expression is correlated with hemizygous deletions at the 9p21-22 chromosome region in non-small cell lung carcinomas. *Anticancer Res* 1999; **19**: 1893-1899.
9. Ikonomopoulos JA, Gorgoulis VG, Zacharatos PV, Manolis EN, Kanavaros P, Rassidakis A, Kittas C. Multiplex polymerase chain reaction for the detection of mycobacterial DNA in cases of tuberculosis and sarcoidosis. *Mod Pathol* 1999; **12**: 854-862.
10. Gorgoulis VG, Mariatos G, Manolis EN, Zacharatos P, Kotsinas A, Liloglou T, Vogiatzi T, Tsagkaraki A, Kokotas S, Tsoli E, Alchanatis M, Sfikakis PP, Asimacopoulos PJ, Field JK, Kittas C. Allelic imbalance at the 5q14 locus is associated with decreased apoptotic rate in non-small cell lung carcinomas (NSCLCs). Possible synergistic effect with p53 gene alterations on apoptosis. *Lung Cancer* 2000; **28**: 211-224.
11. Athanasiou A, Gorgoulis VG, Zacharatos P, Mariatos G, Kotsinas A, Liloglou T, Karameris A, Foukas P, Manolis EN, Field JK, Kittas C. c-mos immunoreactivity is an indicator of good prognosis in lung cancer. *Histopathology* 2000; **37**: 45-54.
12. Gorgoulis VG, Zacharatos P, Kotsinas A, Mariatos G, Liloglou T, Vogiatzi T, Foukas P, Rassidakis G, Garinis G, Ioannides T, Zoumpourlis V, Bramis J, Michail PO, Asimacopoulos PJ, Field JK, Kittas C. Altered expression of the cell cycle regulatory molecules pRb, p53 and MDM2 exert a synergetic effect on tumor growth and chromosomal instability in non-small cell lung carcinomas (NSCLCs). *Mol Med* 2000; **6**: 208-237.
13. Gorgoulis VG, Kotsinas A, Zacharatos P, Mariatos G, Liloglou T, Tsoli E, Kokotas S, Fassoulas C, Field JK, Kittas C. Association of allelic imbalance at locus D13S171 (BRCA2) and p53 alterations with tumor kinetics and chromosomal instability (aneuploidy) in nonsmall cell lung carcinoma. *Cancer* 2000; **89**: 1933-1945.
14. Mariatos G, Gorgoulis VG, Kotsinas A, Zacharatos P, Kokotas S, Yannoukakos D, Kittas C. Absence of mutations in the functional domains of the human MDM2 oncogene in non-small cell lung carcinomas. *Mutat Res* 2000; **456**: 59-63.
15. Mariatos G, Gorgoulis VG, Zacharatos P, Kotsinas A, Vogiatzi T, Rassidakis G, Foukas P, Liloglou T, Tiniakos D, Angelou N, Manolis EN, Veslemes M, Field JK, Kittas C. Expression of p16(INK4A) and alterations of the 9p21-23 chromosome region in non-small-cell lung carcinomas: relationship with tumor growth parameters and ploidy status. *Int J Cancer* 2000 ; **89** : 133-141.
16. Garinis GA, Gorgoulis VG, Mariatos G, Zacharatos P, Kotsinas A, Liloglou T, Foukas P, Kanavaros P, Kastrinakis NG, Vassilakopoulos T, Vogiatzi T, Field JK, Kittas C. Association of allelic loss at the FHIT locus and p53 alterations with tumor kinetics and chromosomal instability in non-small cell lung carcinomas (NSCLCs). *J Pathol* 2001; **193**: 55-65.
17. Gorgoulis VG, Zacharatos P, Mariatos G, Liloglou T, Kokotas S, Kastrinakis N, Kotsinas A, Athanasiou A, Foukas P, Zoumpourlis V, Kletsas D, Ikonomopoulos J, Asimacopoulos PJ, Kittas C,

- Field JK. Deregulated expression of c-mos in non-small cell lung carcinomas: relationship with p53 status, genomic instability, and tumor kinetics. *Cancer Res* 2001; **61**: 538-549.
18. Kotsinas A, Gorgoulis VG, Zacharatos P, Liloglou T, Leonardou P, Bramis J, Troupis TG, Fotiadis C, Field JK, Kittas C. A new rare allele at the CGG repeat polymorphism in the first intron of human c-H-ras gene. *In Vivo* 2001; **15**: 105-108.
19. Vassilakopoulos T, Troupis T, Sotiropoulou C, Zacharatos P, Katsaounou P, Parthenis D, Noussia O, Troupis G, Papiris S, Kittas C, Roussos C, Zakyntinos S, Gorgoulis V. Diagnostic and prognostic significance of squamous cell carcinoma antigen in non-small cell lung cancer. *Lung Cancer* 2001; **32**:137-144.
20. Ikonomopoulos JA, Gorgoulis VG, Kastrinakis NG, Zacharatos PV, Kokotas SN, Evangelou K, Kotsinas AG, Tsakris AG, Manolis EN, Kittas CN. Sensitive differential detection of genetically related mycobacterial pathogens in archival material. *Am J Clin Pathol* 2000; **114**: 940-950.
21. Kotsinas A, Gorgoulis VG, Zacharatos P, Mariatos G, Kokotas S, Liloglou T, Ikonomopoulos J, Zoumpourlis V, Kyroudi A, Field JK, Asimacopoulos P, Kittas C. Additional characterization of a hexanucleotide polymorphic site in the first intron of human H-ras gene. Comparative study of its alterations in non-small cell lung carcinomas and sporadic invasive breast carcinomas. *Cancer Genet Cytogenet* 2001; **126**: 147-154.
22. Tsoli E, Gorgoulis VG, Zacharatos P, Kotsinas A, Mariatos G, Kastrinakis NG, Kokotas S, Kanavaros P, Asimacopoulos P, Bramis J, Kletsas D, Papavassiliou AG, Kittas C. Low levels of p27 in association with deregulated p53-pRb protein status enhance tumor proliferation and chromosomal instability in non-small cell lung carcinomas. *Mol Med* 2001; **7**: 418-429.
23. Zacharatos P, Kotsinas A, Tsantoulis P, Evangelou K, Kletsas D, Asimacopoulos PJ, Doussis-Anagnostopoulou I, Peggella F, Gatter K, Papavassiliou AG, Kittas C, Gorgoulis VG. Relationship of the K-ras/c-mos expression patterns with angiogenesis in non-small cell lung carcinomas. *Mol Med* 2001; **7**: 590-597.
24. Foukas P, Tsilivakos V, Zacharatos P, Mariatos G, Moschos S, Syrianou A, Asimacopoulos PJ, Bramis J, Fotiadis C, Kittas C, Gorgoulis VG. Expression of HLA-DR is reduced in tumor infiltrating immune cells (TIICs) and regional lymph nodes of non-small cell lung carcinomas. A putative mechanism of tumor-induced immunosuppression? *Anticancer Res* 2001; **21**: 2609-2616.
25. Tsoli E, Zacharatos P, Dasiou-Plakida D, Peros J, Evangelou K, Zavras AI, Yannoukakos D, Konstantopoulou I, Asimacopoulos PJ, Kittas C, Gorgoulis VG. Growth index is independent of microvessel density in non-small-cell lung carcinomas. *Hum Pathol.* 2002; **33**: 812-8.
26. Gorgoulis VG, Zacharatos P, Mariatos G, Kotsinas A, Bouda M, Kletsas D, Asimacopoulos PJ, Agnantis N, Kittas C, Papavassiliou AG. Transcription factor E2F-1 acts as a growth-promoting factor and is associated with adverse prognosis in non-small cell lung carcinomas. *J Pathol.* 2002; **198**: 142-56.
27. Kotsinas A, Evangelou K, Zacharatos P, Kittas C, Gorgoulis VG. Proliferation, but Not Apoptosis, Is Associated with Distinct beta-Catenin Expression Patterns in Non-Small-Cell Lung Carcinomas : Relationship with Adenomatous Polyposis Coli and G(1)-to S-Phase Cell-Cycle Regulators. *Am J Pathol.* 2002; **161**: 1619-34.
28. Gazouli M, Kokotas S, Zoumpourlis V, Zacharatos P, Mariatos G, Kletsas D, Perunovic B, Athanasiou A, Kittas C, Gorgoulis V. The complement inhibitor CD59 and the lymphocyte function-associated antigen-3 (LFA-3, CD58) genes possess functional binding sites for the p53 tumor suppressor protein. *Anticancer Res.*; **22(6C)**:4237-41.
29. Gorgoulis VG, Zacharatos P, Kotsinas A, Kletsas D, Mariatos G, Zoumpourlis V, Ryan KM, Kittas C, Papavassiliou AG. p53 activates ICAM-1 (CD54) expression in an NF-kappaB-independent manner. *EMBO J.* 2003; **22(7)**:1567-78.

30. Giannopoulos A, Adamakis I, Evangelou K, Giannopoulou M, Zacharatos P, Zsantoulis P, Perunovic B, Athanasiou A, Retalis G, Constandinidis C, Gorgoulis VG. Interferon- α 2b reduces neo-microvascular density in the 'normal' urothelium adjacent to the tumor after transurethral resection of superficial bladder carcinoma. *Onkologie*. 2003;**26(2)**:147-52.
31. Mariatos G, Bothos J, Zacharatos P, Summers MK, Scolnick DM, Kittas C, Halazonetis TD, Gorgoulis VG. Inactivating mutations targeting the chfr mitotic checkpoint gene in human lung cancer. *Cancer Res*. 2003;**63(21)**:7185-9.
32. Tsoli E, Zacharatos P, Kotsinas A, Gorgoulis VG. Reply to Correspondence: Growth index is independent of microvessel density in non-small cell lung carcinomas. *Human Pathol* 2003; **34(9)**: 959-961.
33. Gazouli M*, Zacharatos P*, Gorgoulis V, Mantzaris G, Papalambros E, Ikonomopoulos J. The C3435T MDR1 gene polymorphism is not associated with susceptibility for ulcerative colitis in Greek population. *Gastroenterology*. 2004;**126(1)**:367-9 (* equal contributed).
34. Ikonomopoulos J, Gazouli M, Pavlik I, Bartos M, Zacharatos P, Xylouri E, Papalambros E, Gorgoulis V. Comparative evaluation of PCR assays for the robust molecular detection of Mycobacterium avium subsp. paratuberculosis. *J Microbiol Methods*. 2004;**56(3)**:315-21.
35. Zacharatos P, Kotsinas A, Evangelou K, Karakaidos P, Vassiliou LV, Rezaei N, Kyroudi A, Kittas C, Patsouris E, Papavassiliou AG, Gorgoulis VG. Distinct expression patterns of the transcription factor E2F-1 in relation to tumour growth parameters in common human carcinomas. *J Pathol*. 2004;**203(3)**:744-53.
36. Evangelou K, Bramis J, Peros I, Zacharatos P, Dasiou-Plakida D, Kalogeropoulos N, Asimacopoulos PJ, Kittas C, Marinos E, Gorgoulis VG. Electron microscopy evidence that cytoplasmic localization of the p16(INK4A) "nuclear" cyclin-dependent kinase inhibitor (CKI) in tumor cells is specific and not an artifact. A study in non-small cell lung carcinomas. *Biotech Histochem*. 2004;**79(1)**:5-10.
37. Kletsas D, Pratsinis H, Mariatos G, Zacharatos P, Gorgoulis VG. The proinflammatory phenotype of senescent cells: the p53-mediated ICAM-1 expression. *Ann N Y Acad Sci*. 2004;**1019**:330-2.
38. Karakaidos P, Taraviras S, Vassiliou LV, Zacharatos P, Kastrinakis NG, Kougiou D, Kouloukoussa M, Nishitani H, Papavassiliou AG, Lygerou Z, Gorgoulis VG. Overexpression of the replication licensing regulators hCdt1 and hCdc6 characterizes a subset of non-small-cell lung carcinomas: synergistic effect with mutant p53 on tumor growth and chromosomal instability--evidence of E2F-1 transcriptional control over hCdt1. *Am J Pathol*. 2004;**165(4)**:1351-65.
39. Gazouli M, Zacharatos P, Mantzaris GJ, Barbatis C, Ikonomopoulos J, Archimandritis AJ, Lukas JC, Papalambros E, Gorgoulis V. Association of NOD2/CARD15 variants with Crohns' disease in a greek population. *Eur J Gastroenterology* 2004; **16(11)**: 1177-82.
40. Bramis J*, Zacharatos P*, Papaconstantinou I, Kotsinas A, Sigala F, Korkolis DP, Nikiteas N, Pazaiti A, Kittas C, Bastounis E, Gorgoulis VG. E2F-1 transcription factor immunoexpression is inversely associated with tumor growth in colon adenocarcinomas. *Anticancer Res* 2004; **24(5A)**: 3041-7 (* equal contributed).
41. Huyen Y, Zgheib O, Ditullio RA Jr, Gorgoulis VG, Zacharatos P, Petty TJ, Sheston EA, Meller HS, Stavridi ES, Halazonetis TD. Methylated lysine 79 of histone H3 targets 53BP1 to DNA double strand breaks. *Nature* 2004; **432(7015)**: 406-11.
42. Gazouli M, Mantzaris GJ, Kotsinas A, Zacharatos P, Papalambros E, Archimandritis AJ, Ikonomopoulos J, Gorgoulis V. Association between polymorphism in the Toll-like receptor 4, CD14 and CARD15/NOD2 and inflammatory bowel disease in the Greek population. *World J Gastroenterol* 2005; **11(5)**: 681-5.

43. Gorgoulis VG, Pratsinis H, Zacharatos P, Demoliou C, Sigala F, Assimacopoulos PJ, Papavassiliou AG, Kletsas D. p53 dependent ICAM-1 overexpression in senescent human cell identified in atherosclerotic lesions. *Lab Invest* 2005; **85(4)**: 502-11.
44. Gorgoulis VG, Vassiliou L-VF, Karakaidos P, Zacharatos P, Kotsinas A, Liloglou T, Venere M, DiTullio RA Jr, Kastrinakis NG, Levy B, Kletsas D, Yoneta A, Herlyn M, Kittas C, Halazonetis TD. Activation of the DNA damage checkpoint and genomic instability in human precancerous lesions. *Nature* 2005; **434**: 907-12.
45. Vasileiadis I, El-Ali M, Nanas S, Koliass S, Zacharatos P, Christopoulou-Cokkinou V, Kotanidou A. First diagnosis of factor XI deficiency in a patient with subarachnoid haemorrhage. *BloodCoagul Fibrinolysis*. 2009; 20:309-13.
46. Makris AC, Sotzios Y, Zhou Z, Makropoulou M, Papapetropoulos N, Zacharatos P, Pyriochou A, Roussos C, Papapetropoulos A, Vassilakopoulos T. Nitric oxide stimulates interleukin-6 production in skeletal myotubes. *J Interferon Cytokine Res*. 2010 May;30(5):321-7.
47. Toumpanakis D, Kastis GA, Zacharatos P, Sigala I, Michailidou T, Kouvela M, Glynos C, Divangahi M, Roussos C, Theocharis SE, Vassilakopoulos T. Inspiratory Resistive Breathing Induces Acute Lung Injury. *Am J Respir Crit Care Med*. 2010 Nov 1;182(9):1129-36.
48. Sigala I, Zacharatos P, Toumpanakis D, Michailidou T, Nougssia O, Theocharis S, Roussos C, Papapetropoulos A, Vassilakopoulos T. MAPKs and NF-κB differentially regulate cytokine expression in the diaphragm in response to resistive breathing: the role of oxidative stress. *Am J Physiol Regul Integr Comp Physiol*. 2011May;300(5):R1152-62.
49. Sigala I, Zacharatos P, Bouliou S, Toumpanakis D, Michailidou T, Parthenis D, Roussos C, Papapetropoulos A, Hussain SN, Vassilakopoulos T. Nitric oxide regulates cytokine induction in the diaphragm in response to inspiratory resistive breathing. *J Appl Physiol* (1985). 2012 Nov;113(10):1594-603.

Academic work

- Co-authorship in writing a chapter in the Histology book for the students of medicine in Athens University (2003, Editor: Prof C. Kittas).
- Co-authorship in writing a chapter in “Handbook of Immunohistochemistry and In Situ Hybridization of Human Carcinomas (Editor: MA Hayat, Elsevier 2003).
- Participation in Teaching of Histology and Histochemistry to the students of MSc “Applications of Biology in Medicine”, Athens University (2003-4).
- Participation in Teaching of Molecular diagnostics to the students of “Elenas Venizelos” Hospital, Athens (2003-4)
- Participation in Teaching of Emergency medicine to the nurses of Evangelismos Hospital, Athens (2006-8)
- Lecturer in Applied Molecular Biology at Dept. of Medical Laboratories of TEI Athens (10/2009-2/2012).
- Assist Prof in Cell Molecular Biology at Dept. of Medical Laboratories of TEI Athens (3/2012- to date).

Membership of Professional Bodies

- Member of Hellenic Union of Biosciences
- Member of Medical Association of Athens and Greek Medical Association