



Curriculum Vitae

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PERSONAL INFORMATION

Name and surname **Sonja Levanat**
 Academic title prof dr sc
 Year and institution of PhD obtained 1988. Faculty of Science, University of Zagreb
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 Citizenship Croatian
 Date and place of birth 1953, Krsko, Slovenia

WORK EXPERIENCE¹ (CHRONOLOGICALLY*)

Date (from – until) 1978-1979
 Institution Rudjer Boskovic Institute
 Position assistant

Date (from – until) 1982-1988
 Institution Rudjer Boskovic Institute
 Position research assistant
 Position molecular biochemistry and experimental oncology

Date (from – until) 1989-1990
 Institution Rudjer Boskovic Institute
 Position research assistant
 Work field experimental oncology

Date (from – until) 1991-1997
 Institution Rudjer Boskovic Institute
 Position research associate
 Work field cancer genetics and molecular medicine

Date (from – until) 1998-2003
 Institution Rudjer Boskovic Institute
 Position senior research associate, principal investigator
 Work field cancer genetics and molecular medicine

Date (from – until) 2004-2007
 Position senior scientist, principal investigator
 Institution Rudjer Boskovic Institute

^{1,2,3} Please add rows to enter all required information

* all information in the document should be entered chronologically – from the most recent to the oldest

Work field cancer genetics and molecular oncology

Date (from – until) 2008-present
 Position senior scientist, permanent position
 Institution Rudjer Boskovic Institute
 Work field translational medicine, cancer genetics and molecular medicine

Date (from – until) 2010-2015
 Position professor
 Institution University of Rijeka
 Work field molecular medicine

EDUCATION² (CHRONOLOGICALLY)

Date 1978
 Place Zagreb
 Institution Faculty of Science University of Zagreb
 Title of qualification B Sc in Organic Chemistry and Biochemistry;
 awarded

Date 1984
 Place Zagreb
 Institution Faculty of Science University of Zagreb
 Title of qualification M Sc in Medical Biochemistry
 awarded

Date 1988 Rudjer Boskovic Institute
 Place Zagreb
 Institution University of Zagreb
 Title of qualification PhD Experimental Oncology
 awarded

TRAINING (CHRONOLOGICALLY)

Year VII,1988. Summer School in Biophysics and Molecular Biology
 Place Duino (Trieste) Italy
 Institution United Work College of the Adriatic-Duino (Trieste)
 Subject and skills covered Molecular Biology of Growth Factors and their Receptors

Year 1988-1989, 1991
 Place Hamburg, Germany
 Institution Laboratory for Molecular Endocrinology Institute for Physiological Chemistry, University Clinics Eppendorf, University of Hamburg, Germany
 Subject and skills covered molecular endocrinology and biochemistry

Year 1993- 1995
 Place New Haven, CT, USA
 Institution Yale School of Medicine, Department of Genetics, New Haven
 Subject and skills covered genetics, tumor suppressors

LANGUAGES**MOTHER TONGUE** croatian, Slovenian

LANGUAGE english
 Speaking excellent
 Writing excellent
 Reading excellent

OTHER FOREIGN LANGUAGES³

LANGUAGE german
 Speaking moderate
 Writing moderate
 Reading good

RESEARCH AND OTHER PROJECTS

(CHRONOLOGICALLY; LEADER AND ASSOCIATES; FUNDING SOURCE)

2006-present scientific project "Signal transduction in tumors:Hh-Gli interactions and therapeutic potential", principal investigator, Ministry of Science, Education and Sports, Republic of Croatia
 2009-2010 "Genetic Testing of Inherited Predisposition to Breast and Ovarian Cancer" principal investigator, The Terry Fox Run, Terry Fox donation, Canadian Embassy
 2007-2009 "Hereditary breast cancer predisposition in Croatia and Hungary", principal investigator , Croatian – Hungarian Intergovernmental S&T Cooperation Programme;
 2005-2006 technological project "Developing method for detection of inherited predisposition to breast cancer in Croatia" , principal investigator, Ministry of Science and Technology, Republic of Croatia ;
 2002 - 2006 scientific project "The SHH/PTCH/SMO signaling pathway in tumorigenesis and development", principal investigator, Ministry of Science and Technology, Republic of Croatia 0098091;
 2003-2005 Collaborative joint project Cogito between France and Croatia "Molecular genetics of Gorlin syndrome" principal investigator, Ministries of Sciences and Technology, Republic of Croatia and France;
 2002 - 2004 bilateral joint project "The role of the SHH/PTCH/SMO pathway in oncogenesis. Mechanisms of regulation of the SHH/PTCH/SMO pathway in different pathological conditions", principal investigator Croatian and Austrian Ministries of science
 1997 - 1999 joint project "Molecular aspects of malignancy", principal investigator, Ministry of Sciences and Technology, Republic of Croatia and Ministry of Sciences and Technology, Republic of Slovenia;
 1996 - 2001 scientific project"The role of Gorlin syndrome in malformations and tumor development", principal investigator, Ministry of Sciences and Technology, Republic of Croatia.

TEACHING

(CHRONOLOGICALLY; UNDERGRADUATE, GRADUATE , POSTGRADUATE STUDY PROGRAMMES)

"Signaling pathways and interactions", graduate course at the Department of Biotechnology and drug development, University of Rijeka, from 2010-present;

"Combination of therapies and mechanisms in treatment of malignant diseases", "Genomic DNA", "Biology of tumor and normal cell" postgraduate courses at Molecular Biosciences, a joint postgraduate program by the University of Osijek, University of Dubrovnik and Rudjer Boskovic Institute, Croatia, from 2008 – present

"Molecular, biological and biochemical functions of the cell" postgraduate course at the Faculty of Veterinary Medicine, University of Zagreb from 2005-present.

"Molecular biology and biochemistry of normal and transformed cells" postgraduate course at the School of Medicine University of Zagreb from 2003-present

" Biological methods in genetic toxicology" postgraduate course at Faculty of Sciences, University of Zagreb from 2001- present

Participating in lecturing in Courses Molecular Oncology, Molecular Medicine and Growth Factors, Oncogenes and Tumor Suppressors at School of Medicine (1996, 1997, 1998, 1999); Molecular Oncology at Faculty of Sciences (1997,1998) and Molecular Biology of Cell at Faculty of Veterinary Medicine University of Zagreb (1996, 1997)

**MENTORSHIP OF DEFENDED DOCTORAL AND MASTER DISSERTATIONS
AND TRAINING OF YOUNG RESEARCHERS AND SCIENTISTS
(CHRONOLOGICALLY)**

1. Zvonimir Uzarevic, doctoral thesis: "The Hh-Gli signaling pathway activity in estrogen dependent (MCF-7) and estrogen independent (Sk-Br-3) breast cancer cell lines"; University Josip Juraj Strossmayer Osijek, Rudjer Boskovic Institute and University of Dubrovnik, University Postgraduate Interdisciplinary Doctoral Study Molecular Biosciences, defended 25.10.2011; mentor: Levanat Sonja.
2. Martinić Marina graduation thesis: „Expression of Hedgehog-Gli signaling pathway proteins in colon cancer“ Zagreb: Faculty of Science, University of Zagreb, defended 21.09.2011; mentor: Levanat Sonja.
3. Leović Dinko, doctoral thesis: "The expression and importance of Hedgehog signaling pathway in oral and oropharyngeal carcinomas"; University School of Dental Medicine, University of Zagreb; defended 10.06. 2010, Mentors: Macan, Darko ; Levanat, Sonja.
4. Sabol Maja, doctoral thesis: "Mechanism of Hh-Gli signaling pathway activation in ovarian dermoid primary cultures"; Faculty of Science, University of Zagreb, defended 17.06. 2010; mentor: Levanat, Sonja.
5. Car Diana, graduation thesis: "Expression of genes in the Hh-Gli signaling pathway in basocellular carcinoma", Faculty of Science, University of Zagreb, defended 06.10.2008. 2008; mentor Levanat, Sonja.
6. Musani Vesna, doctoral thesis: "Mechanisms of Hedgehog/Patched/Gli signaling pathway regulation in tumors and hereditary diseases"; Faculty of Science, University of Zagreb, defended 13.05. 2008; mentor: Levanat, Sonja.
7. Blažević Sofia Ana, graduation thesis: „Blockade of Hh-Gli signal pathway in primary cultures of ovarian dermoids“, Faculty of Science, University of Zagreb, defended 24.1. 2007; mentor: Levanat, Sonja.
8. Marković Maja, graduation thesis: „Functional and structural feature of gene SMO in basocellular carcinoma“, Faculty of Science, University of Zagreb, defended 16.11. 2007; mentor: Levanat, Sonja.
9. Tijanić Tamara, graduation thesis: "Development and application of immunochemical method in detecting main proteins of the Hh-Gli signal pathway", Faculty of Science, University of Zagreb, defended 3.10. 2007; mentor: Levanat, Sonja.
10. Stipić Tonči, doctoral thesis: "Investigation of mutations in a newly discovered signaling pathway in sporadic and hereditary basocellular carcinomas of the skin", University School of Medicine, University of Zagreb, defended 28.2. 2007; mentors: Šitum, Mirna and Levanat, Sonja.
11. Tomasović Ana, graduation thesis: „Expression analysis of Hh-Gli pathway related genes in ovarian dermoid primary culture“, Faculty of Science, University of Zagreb, defended 30.05. 2006; mentor :Levanat, Sonja.
12. Toševski Vinko, graduation thesis: „Establishment of immortal tumor cell lines by telomerase gene expression“, Faculty of Science, University of Zagreb, defended 22.09. 2006; mentor: Levanat, Sonja.
13. Ozretić Petar, graduation thesis: „Polymorphisms of exons 1,2 and 3 of p16 tumor suppressor gene“, Faculty of Science, University of Zagreb, defended 08.02. 2005 mentor: Levanat, Sonja.
14. Mirt Nada, masters' thesis: „Analysis of chromosomal region 8q,17q and 18q in patients with Mal de meleda“, Faculty of Science, University of Zagreb, defended 17.12.2003 2003; mentor: Levanat, Sonja.
15. Pokupčić Nikola, graduation thesis: „Analyses of polymorphisms of human chromosome region 9p21“, Faculty of Science, University of Zagreb, defended 18.06. 2002; mentor: Levanat, Sonja.
16. Crnić Ivana, masters' thesis: „Alterations of *ptch* gene in benign ovarian tumors“, Faculty of Science, University of Zagreb, defended 17.05.2000 2000; mentor: Levanat, Sonja.
17. Pavelić Božidar, doctoral thesis: "The role of tumor suppressors in development of jaw cysts", University School of Dental Medicine, University of Zagreb; defended 30.03. 1999; mentors: Šutalo, Jozo and Levanat, Sonja.
18. Hrženjak Maja masters' thesis: "Mitogenicity of insulin like proteins in earthworm", Faculty of Science, University of Zagreb, defended 1992; mentors: Jurin, Mislav and Levanat, Sonja.
19. Sever Zvezdana, graduation thesis: "Insulin like molecules in mixoma tissue", Faculty of Science, University of Zagreb, defended 1989; mentors: Pavelić, Krešimir and Levanat, Sonja.

VISITS TO FOREIGN RESEARCH AND EDUCATION INSTITUTIONS

(CHRONOLOGICALLY; ONLY VISITS LONGER THAN 3 MONTHS)

1998. Marburg, Center for Internal Medicine, Hematology Oncology and Immunology, Clinical hospital Marburg, Marburg, Germany
 2003. Salzburg, University of Salzburg, Department of Genetics, Austria

AWARDS AND RECOGNITIONS

(CHRONOLOGICALLY)

1979. Farmaceutical company "Krka", Slovenia;
 2010. EACR Honorary membership

ORGANIZATIONAL SKILLS AND COMPETENCES

(CHRONOLOGICALLY; ORGANIZATION OF HOME AND INTERNATIONAL SCIENCE EVENTS)

Member of Scientific Committee of International Congress on Head and Neck Tumors and 1st Congress of Croatian Head and Neck Society, Zagreb, 2011
 President of Organisational and Scientific Committee of HDIR-1 : From Bench to Clinics, first conference of Croatian Association for Cancer Research with international participation;
 Member of Scientific programme Advisory Committee 21 Meeting EACR-a (European Association for Cancer Research), Oslo, 2010;
 Member of Organisational and Scientific Committee of Congress of Croatian Society of Biochemistry and Molecular, Opatija 2012, 2010. , Osijek 2008., Vodice 2006., and Bjelolasica 2004.;
 Since 2000. organization of Seminars of Department of Molecular Medicine devoted to biological sciences which are running on a monthly basis
 1988 Medical Summer School Dubrovnik , Introduction into Molecular Medicine and Signal Transduction, Inter-University Center Dubrovnik
 1997 International meeting New aspects in Molecular Medicine 4 - Human Molecular Genetics, Croatian Academy of Sciences and Arts

MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

(CHRONOLOGICALLY; HOME AND INTERNATIONAL ORGANIZATIONS AND BODIES)

Honorary membership of EACR (European Association for Cancer Research)
 President of Croatian Association for Cancer Research (HDIR) from 2009,
 Member of European Association for Cancer Research (EACR) and Council Member of EACR from 2006,
 Member of Society of Biochemistry and Molecular Biology and Presidency Member from 2003,
 Member of Croatian Association of Human Genetics,
 Member of Croatian Society of Medical Biochemistry,
 Member of Association for oncogenes and growth factors at HAZU (Croatian Academy of Sciences and Arts) and Member of Association for genomics and proteomics in oncology at Medical Sciences Department at HAZU (Croatian Academy of Sciences and Arts)

COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

(CHRONOLOGICALLY; HOME AND INTERNATIONAL)

Member of Scientific Board of Rudjer Boskovic Institute from 2007.-present
 Vice president of Scientific Board of Division of Molecular Medicine, Rudjer Boskovic Institute 2009.- present
 Library Committee of Rudjer Boskovic Institute, 2001.- 2006.

(CHRONOLOGICALLY; RESEARCH BOOKS, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS; PLEASE WRITE THEIR IMPACT FACTOR)

1. Baltic V, Levanat S, Petek M, Vrbanec D, Pavelic K. (1985) Elevated levels of substances immunologically cross-reactive with insulin in blood of patients with malignant and nonmalignant pulmonary tissue proliferation. **Oncology** 42:174 -178. . **IF 2.8**
2. Pavelic K, Vrbanec D, Marusic S, Levanat S, Cabrijan T. (1986) Autocrine tumour growth regulation by somatomedin C: an in vitro model. **J Endocrinol** 109:233-238. **IF 2.395**
3. Vuk-Pavlovic S, Opara EC, Levanat S, Vrbanec D, Pavelic K. (1986) Autocrine tumor growth regulation and tumor-associated hypoglycemia in murine melanoma B16 in vivo. **Cancer Res** 46:2208-2213. **IF 8.37**
4. Pericic D, Manev H, Levanat S, Jernej B, Vujic D, Djordević N. (1986) Effect of dihydroergosine (DHESN) on the serotonergic system and behaviour: is DHESN a new antidepressive agent. **Psychopharmacology** 90:112-118. . **IF 3.4**
5. Cabrijan T, Pacarizi H, Levanat S, Vrbanec D, Pavelic J, Milkovic D, Spaventi R, Koncar M, Baltic V, Spaventi S, Pavelic K. (1988) Autocrine tumor growth regulation by the insulin growth factor I (IGF I) and epidermal growth factor (EGF). *Hormones and Cancer 3.* (eds. Bresciani B, King RJP, Lippman MF, Raynaud JP) **Progress in Cancer Research and Therapy** 35:227-230.
6. Kruslin B, Levanat S, Baltic V, Milkovic D, Pavelic J, Spaventi R, Spaventi S, Pavelic K. (1989) Growth factors in human tumors. **Res Exp Med** 198:91-99. **IF 0.769**
7. Osmak M, Sirotkovic M, Levanat S, Korbelik M, Pavelić K. (1989) Substance immunologically cross-reactive with insulin (SICRI) stimulates cell division. **Oncology** 46:54-57. **IF 2.8**
8. Levanat S, Pavelic K. (1989) Isolation and purification of a substance immunologically cross-reactive with insulin (SICRI) from tumor tissue. **Int J Biochem** 21:509-515.
9. Levanat S, Pavelic K. (1990) Substance immunologically cross-reactive with insulin from murine myeloid leukemia: Purification and characterization. **Biol Chem Hope-Seyler** 371:249-254.
10. Pavelic K, Despot N, Levanat S, Casl T. (1990) Protective role of transforming growth factor β (TGF β) in tumor-induced degradation of basement membranes. **Biol Chem Hope-Seyler** 371:687-692. **IF 3.36**
11. Pacarizi H, Spaventi R, Spaventi S, Levanat S, Pavelic J, Pavelic K. (1990) The expression of growth factors in human melanomas. **Tumor Diagnostik Therapie** 11:37-40. **IF 0.286**
12. Slade N, Levanat S, Spaventi S, Pavelic K. (1991) Collagenase derived from human fibrosarcoma is responsible for degradation of basement membrane. **Int J Exp Path** 72:715-724. **IF 1.968**
13. Cabrijan T, Levanat S, Pekic B, Pavelic J, Spaventi R, Frahm H, Zjadic-Rotkvic V, Goldoni V, Vrbanec D, Misjak M, Grazio S, Pavelic K. (1991) The role of insulin-related substance in Hodgkin's disease. **J Cancer Res Clin Oncol** 117:615-619. . **IF 2.162**
14. Hrzenjak T, Hrzenjak M, Kasuba V, Efenberger-Marinculic P, Levanat S. (1992) A new source of biologically active compounds-Earthworm tissue (*Eisenia Foetida*, *Lumbricus Rubelus*). **Comp Biochem Physiol** 102 A:441-447. **IF 1.556**
15. Sever Z, Pavelic J, Levanat S, Spaventi R, Slade N, Jelic I, Pavelic LJ, Cabrijan T, Casl T, Pavelic K. (1992) Insulin-related substances in human solid tumors. **Tumor Diagnostik Therapie** 13:54-59. **IF 0.286**
16. Hrzenjak M, Kobrehel D, Levanat S, Jurin M, Hrzenjak T. (1993) Mitogenicity of the earthworm's (*Eisenia Foetida*) insulin-like proteins. **Comp Biochem Physiol** 104 B(4):723-729. **IF 1.579**
17. Johnson DR, Levanat S, Bale AE. (1995) Direct molecular analysis of archival tumor

tissue for loss of heterozygosity. **BioTechniques** 19(2):190 -192. **IF 2.383**

18. Levanat S, Gorlin RJ, Fallet S, Johnson DR, Fantasia JE, Bale AE. (1996) A two-hit model for developmental defects in Gorlin syndrome. **Nature genetics** 12:85-87. **IF 26.494**

19. Shimkets R, Gailani M, Siu V, Yang-Feng T, Pressman C, Levanat S, Goldstein A, Dean M, Bale AE. (1996) Molecular analysis of chromosome 9q deletions in two Gorlin syndrome patients. **Am J Hum Genet** 59:417-422. **IF 11.602**

20. Levanat S, Chidambaram A, Wicking C, Bray-Ward P, Pressman C, Toftgard R, Gailani MR, Wainwright B, Dean M, Bale AE. (1997) Pulsed-field gel electrophoresis and FISH mapping of chromosome 9q22: Placement of a novel zinc finger gene within the NBCCS and ESS1 region. **Cytogenet Cell Genet** 76:208-213. **IF 1.162**

21. Situm M, Levanat S, Crnic I, Pavelic B, Macan D, Grgurevic J, Mubrin-Koncar M, Lipozencic J. (1999) Involvement of patched (PTCH) gene in Gorlin syndrome and related disorders: three family cases. **Croat Med J** 40(4):533- 538. **IF 0.94**

22. Levanat S, Koncar Mubrin M, Crnic I, Situm M, Basta-Juzbasic A. (2000) Variable expression of Gorlin syndrome may reflect complexity of signalling pathway. **Pflugers Archiv - European Journal of Physiology** 439:R31- R33. **IF 2.3**

23. Levanat S, Pavelic B, Crnic I, Oreskovic S, Manojlovic S. (2000) Involvement of PTCH gene in various noninflammatory cysts. **Journal of Molecular Medicine** 78:140-146. **IF 4.101**

24. Pavelic B, Levanat S, Crnic I, Kobler P, Anic I, Manojlovic S, Sutalo J. (2001) PTCH gene altered in dentigerous cysts. **Journal of Oral Pathology & Medicine** 30:569-76. **IF 0.969**

25. Pavelic K, Krizanac S, Cacev T, Popovic-Hadzija M, Radosevic S, Crnic I, Levanat S, Kapitanović S. (2001) Abberation of FHIT gene is asociated with increased tumor proliferation and decreased apoptosis-clinical evidence in lung and head and neck carcinomas. **Molecular Medicine** 7(7):442-453. **IF 2.656**

26. Situm M, Poje G, Grahovac B, Marinovic B, Levanat S. (2002) Diagnosis of Lyme borreliosis by polymerase chain reaction. **Clin. Dermatol** 20(2):147-155. **IF 0.647**

27. Bakija-Konsuo A, Basta-Juzbasic A, Rudan I., Situm M, Nardelli-Kovacic M, Levanat S, Fischer J, Hohl D, Lončarić D, Seiwert S, Campbell H. (2002) Mal de Meleda: genetic haplotype analysis and clinicopathological findings in cases originating from the island of Mljet(Meleda), Croatia. **Dermatol** 205:32-39.

28. Levanat S, Situm M, Crnic I, Marasovic D, Puizina-Ivic N, Pokupcic N, Musani V, Komar A, Kubat M, Furač I, Karija-Vlahović M, Križanac Š.(2003) Alterations in CDK2A locus as Potential Indicator of Melanoma Predisposition in Relatives of Non-Familial Melanoma Cases. **Croat Med J** 44:418-424. **IF 0.943**

29. Levanat S, Kappler R, Hemmerlein B, Doring P, Musani V, Komar A, Oreskovic S, Pavelic B, Hahn H. (2004) Analysis of alterations of the PTCH1 signaling pathway in ovarian dermoids. **Int J Mol Med** 14:793-799. **IF 3.190**

30. Musani V, Gorry P, Basta-Juzbasic A, Stipic T, Miklic P, Levanat S (2006) Mutation in exon 7 of PTCH deregulates SHH/PTCH/SMO signaling. Possible linkage to WNT. **Int J Mol Med**. 17:755-759.

31. Cretnik M, Musani V, Oreskovic S, Leovic D, Levanat S (2007) The Patched gene is epigenetically regulated in ovarian dermoids and fibromas, but not in basocellular carcinomas. **Int J Mol Med** 19:875-883. **IF 3.190**

32. Levanat S, Cretnik M, Musani V (2008) Hh-Gli signaling pathway functions and its therapeutic potential in cancer. **Croatia Chemica Acta** 81(1):1-5.

33. Bura M, Musani V, Cretnik M, Botica I, Levanat S (2008) Hedgehog-Patched pathway aberrations in malignant triton tumor case study. **Oncology Reports** 20:347-352.

34. Levacic-Cvok M, Cretnik M, Musani V, Ozretic P, Levanat S(2008) New sequence variants in BRCA1 and BRCA2 genes detected by high-resolution melting analysis in an elderly healthy female population in Coatia, **Clin Chem Lab Med** 46(10):1376-1383. **IF**

1,888

35. Willems P, Magri V, Cretnik M, Fasano M, Jakubowska A, Levanat S, Lubinski J, Marras E, Musani V, Thierens H, Vandersickel V, Perletti G, Vral A. (2009) Characterization of the c.190T>C missense mutation in BRCA1 codon 64 (Cys64Arg) **Int J Oncol** 34: 1005-1015.

IF 2.447

36. Cretnik M, Poje G, Musani V, Kruslin B, Ozretic P, Tomas D, Situm M, Levanat S (2009) Involvement of p16 and PTCH in pathogenesis of melanoma and basal cell carcinoma **Int J Oncol** 34: 1045-1050. **IF 2,445**

37. Musani V, Cretnik M, Situm M, Basta-Juzbasic A, Levanat S (2009) Gorlin Syndrome patient with large deletion in 9q22.32-q22.33 detected by Quantitative Multiplex Fluorescent PCR. **Dermatology** 219(2):111-118.

38. Sabol I, Čretnik m, Hadzisejdic I, Si-Mohamed A, Matovina M, Grahovac B, Levanat S, Grce M (2009) A new approach for the evaluation of the human papillomavirus type 16 variability with high resolution melting analysis. **J Virol Methods** 162:142-147.

39. Leović D, Sabol M, Ozretić P, Musani V, Car D, Marjanović K, Zubčić V, Sikora M, Glavaš-Obrovac Lj, Levanat S. Hh-Gli signaling pathway activity in oral and oropharyngeal squamous cell carcinoma (2010) **Head Neck [in press]** **IF 2.182**

40. Lof-Ohlin ZM, Levanat S, Sabol M, Sorbe B, Nilsson TK. Promoter methylation in the PTCH gene in cervical epithelial cancer and ovarian cancer tissue as studied by eight novel Pyrosequencing assays (2011) **Int J Oncol** 38:685-692. **IF 2.447**

41. Lo Muzio L, Pastorino L, Levanat S, Musani V, Situm M, Bianchi Scarra G (2011) Clinical utility gene card for: Gorlin syndrome. **Eur J Hum Genet** e1-e3;doi:10.1038/ehjg.2011.9

42. Beketic-Oreskovic L, Ozretic P, Rabbani ZN, Jackson IL, Sarcevic B, Levanat S, Maric P, Babic, I, Vujaskovic Z. Prognostic significance of carbonic anhydrase IX (CA-IX), endoglin (CD105) and 8-hydroxy-2'-deoxyguanosine (8-OHdG) in breast cancer patients. **Pathol Oncol Res.** 2011; 17(3):593-603. **IF 1.483**

Reviews:

1. Beketic-Oreskovic L, Maric P, Ozretic P, Oreskovic D, Ajdukovic M, Levanat S. Assessing the clinical significance of tumor markers in common neoplasms. **Frontiers in bioscience.** 2011 [accepted manuscript] **IF 4.048**

2. Car D, Sabol M, Musani V, Ozretic P, Levanat S (2010) Epigenetic regulation of the Hedgehog-Gli signaling pathway in cancer. **Periodicum Biologorum** 112(4): 419-423 **IF 0,229**

3. Ozretic P, Cvok ML, Musani V, Sabol M, Levanat S (2010) In silico analysis of potential structural and functional significance of human breast cancer gene BRCA2 sequence variants found in 5' untranslated region. **Periodicum Biologorum** 112 (4): 469-474. **IF0,229**

4. Levanat S (2010) Croatian Association for Cancer Research Source: . **Periodicum Biologorum** 112 (4): 487-488 **IF0,229**

5. Marić P, Ozretić P, Levanat S, Orešković S, Antunac K, Beketić-Orešković L. Tumor Markers in Breast Cancer – Evaluation of their Clinical Usefulness. (2011) **Coll. Antropol.** **35** 1: 241–247. **IF 0.519**

6. Levanat S, Musani V, Levačić Cvok M, Čretnik M (2006) Molecular Signaling in Breast Cancer, **Medimond Int**, ISBN 88-7587-292-9, Medimond S.r.L. Monduzzi Editore.

7. Levanat S, Musani V, Komar A (2004) The Hedgehog / Patched signaling Pathway (SHH/PTCH/SMO) in cancer and development. **Periodicum Biologorum**, 106(3):23-27. **IF0,229**

8. Levanat S, Šitum M, Lipozenčić J (1999): Nevoid basal cell carcinoma syndrome (NBCCS) or Gorlin syndrome. **Acta Dermatovenerol Croat** 7(1):11-17.

Research papers (other databases):

Levanat S, Levačić Cvok M (2010) Molecular basis of breast cancer related to BRCA 1 and BRCA2 genes: characteristics and targeting therapy. **Liječ Vjesn** 132:34-37

Levanat S, Levačić Cvok M (2009) Mogućnosti ranog otkrivanja obiteljske sklonosti nastanku raka dojke i jajnika u Hrvatskoj, **Medix** 82(15):88-90. ISSN: 1331-3002

Levanat S, Levačić Cvok M. (2009) Genetičko testiranje na nasljednu sklonost raku dojke i/ili jajnika. **Liječničke novine** 77:25. ISSN 1333-2775, Hrvatska liječnička komora, Mediaprint-Tiskara Hrastic d.o.o., Zagreb

Levanat S. (2008) Genetičko testiranje - sklonosti tumoru dojke i/ili jajnika, **Vaše zdravlje** 60:96-97, Oktal Pharma d. o.o. Zagreb

Levanat S, Levačić Cvok M. (2008) Rak jajnika. **Zdrav život**; 60:42-44, ISSN:1333-8919; Medical Intertrade d.o.o. Sveta Nedjelja, Hrvatska

Levanat S, Musani V, Komar A, Orešković S. (2004) Role of the Hedgehog/Patched signaling pathway in oncogenesis. A new polymorphism in the PTCH gene in Ovarian Fibroma. **Ann. N. Y. Acad. Sci.** 1031:134-143.

Levanat S, Pavelić B, Crnić I, Šitum M, Manojlović M, Mubrin-Končar M, Basta-Juzbašić A. (1998) Role of PTCH in Cancer and Development. **Periodicum Biologorum** 100(3):319-324.

Pavelić B, Levanat S, Crnić I, Prskalo K, Manojlović S (1999) Citokeratin 17 kod odontogenih cista. **Medix** 27/28:126-127.

Levanat S. (1988) Hormoni i rak. **Periodicum Biologorum** 90:73-74.

Vrbanec D, Čabrijan T, Silobričić I, Zjačić-Rotkivć V, Levanat S, Vizner B, Sekso M, Goldoni V, Karapandža N, Brkić K (1986) Paraneoplastični hipoglikemijski sindrom-prikaz bolesnika s recidivirajućim tumorskim hipoglikemijama. **Liječ Vjesn** 108:74-76.

Jernej B, Levanat S, Cizelj A, Deanović Ž (1982) Promjene tjelesne težine ozračenih štakora kao biodozimetrijski pokazatelj. **Radiol. Jugosl** 16:509-516.

Book chapters:

1. Levanat S, Levačić Cvok M (2010) Stanična i molekularna biologija raka prostate 51-64//Rak prostate/ Šamija M (ur). Zagreb: Medicinska naklada- Zagreb

2. Levanat S (2008) Uloga genetike u ranom otkrivanju raka dojke 43-52// *Bolesti dojke* / Prpić, Ivan ; Unušić, Josip (ur.). Zagreb : HAZU

3. Levanat S (2007) : Elektroforeza DNA u poliakrilamidnom gelu, 211-215; Bojanje DNA srebrom, 215-216; / Ambriović Ristov, Andreja i sur u Metode u molekularnoj biologiji; Sveučilište u Zagrebu i Institut Ruđer Bošković.

4. Čretnik M, Grbeša I, Levanat S, Gall Trošelj K : Određivanje metiliranosti DNA obradom DNA bisulfitom te određivanjem slijeda nukleotida, 374-379 / Ambriović Ristov, Andreja i sur u Metode u molekularnoj biologiji; Sveučilište u Zagrebu i Institut Ruđer Bošković.

5. Levanat S, Gall Trošelj K (2007) Molekularna dijagnostika raka dojke, 99-107 // Tumori dojke/ Šamija M, Juzbašić S, Šeparović V, Vrdoljak DV; Medicinska naklada Hrvatske, Onkološko društvo-HLZ, Zagreb

6. Levanat S. (2006) Biologija melanoma i obiteljski melanom in Melanom, eds S. Stanec and Z. Stanec, medicinska naklada, Zagreb

7. Levanat S (2005) Molekularna genetika obiteljskog i hereditarnog raka dojke, 47-57 // *Bolesti dojke* / Prpić, Ivan ; Unušić, Josip (ur.). Zagreb : HAZU

8. Levanat S (2003) Metodološki tečajevi u biologiji i medicini / Ambriović Ristov, Andreja (ur.). Zagreb : Institut Ruđer Bošković

9. Levanat S (2003) Obiteljski melanom 53, Melanom protokol liječenja, Stanec S, Šitum M (ur.), Znanje d.d., Zagreb

10. Spaventi R, Levanat S (1994) Growth Factors and Control of Cell Cycle. Croatian Academy of Science and Art. HAZU Rad, 464, Medicinske znanosti, Zagreb, 19-37.

11. Levanat S (1989) Transforming factor beta (TGF β). Onkogeni i faktori rasta. Eds Ikić, Pavelić, Spaventi. Jugosl. Akademija znanosti i umjetnosti, Zagreb:141-153.

More details at <http://bib.irb.hr/lista-radova?autor=113154>

OTHER RESEARCH ACTIVITIES

(CHRONOLOGICALLY; CHIEF EDITOR OR EDITOR OF RESEARCH BOOK, HOME AND INTERNATIONAL RESEARCH JOURNALS, HOME AND INTERNATIONAL CONFERENCE PROCEEDINGS AND OTHER)

from 2009. editorial board of Periodicum Biologorum;
Guest editor of Periodicum Biologorum (vol 100, no 3, 1998.)

Reviewer for International Journals: Croatian Medical Journal 2000., 2001., 2002., 2003., 2005.;
European Journal of Physiology 2002.; Journal of Investigative Dermatology 2003., 2009.; Journal
of Neuroscience Research 2009.;

Reviewer for home Journals: Liječnički vijesnik 2011;

Reviewer for Ministry of Science and Technology Republic of Croatia 2002, 2004 and 2006

Reviewer for Ministry of Science and Technology Republic of Slovenia: 2007., 2011.

COMPUTER SKILLS

Computer use: use of Microsoft Office™ word processing and calculation tools (Word™, Excel™
and PowerPoint™)

OTHER IMPORTANT SKILLS AND COMPETENCES**ADDITIONAL INFORMATION AND NOTES**

Invited speaker**Plenary lectures:**

Molecular genetic events in skin cancer. Treći internacionalni kongres Hrvatskog udruženja za zaštitu od neionizirajućeg zračenja "Albert Einstein" pod naslovom "Macular degeneration & skin cancer", Opatija, 23.-25.10.2009.

Molecular mechanisms of skin diseases, 22nd Ljudevit Jurak International symposium on comparative pathology, Zagreb, 3.-4.06.2011.

Invited speaker:

Translational research in molecular biology of breast cancer-new achievements and clinical applications. XXI scientific Meeting on Breast diseases 2011., Zagreb, Croatian Academy of Sciences and Arts (HAZU), 15.09.2011.

Molecular genetics of inherited breast cancer.The 8th Balkan meeting on human genetics.Cavtat, Hrvatska 14.-17.05.2009.

Hedgehog-Gli signaling pathway interactions and therapeutic potential in proliferative tumors of the ovary. The 12th International Symposium on Molecular Medicine i 14th World Congress on Advances in Oncology) Loutraki, Greece 14.-18.10.2009

Hereditary breast cancer and diagnostics, Europa donna Croatia and Croatian Senology Society 14.03.2008. Zagreb

Evasive role of Hh-Gli pathway in cancer genetics (with an introduction on the state of cancer genetics research in Croatia), The Cancer Genetics Grand Rounds, Yale School of Medicine, New Haven USA, June 17, 2008.

Role of genetics in early breast cancer detection. Croatian Academy for science and art (HAZU), Zagreb 25.9.2008.

Molecular diagnostics of inherited breast cancers. 3. Slovenian congress of clinical chemistry with international participation Ljubljana, Slovenia 13-15.11. 2008.

Genetics of breast cancer, Europa donna Croatia and Croatian Senology Society 24.03.2007. Zagreb

Interactions and therapeutic potential of Hh-Gli pathway genes in different tumors. 12 th World Congress on Advances in Oncology and 10th International Symposium on Molecular Medicine, Crete, Greece, October 11-13, 2007.

Molecular signaling in Breast Cancer. 14 th S.I.S. World Congress on Breast Diseases, Zagreb, Croatia, May 18-21.2006.

Signal transductions in tumors: Hh-Gli interactions and therapeutic potential. 11 th World Congress on Advances in Oncology and 9th International Symposium on Molecular Medicine, Crete, Greece, October 12-14, 2006.

Hh-Gli signaling pathway functions and its therapeutic potential in cancer. Congres of Croatian Society for Biochemistry and Molecular Biology with international participation (HDBMB 2006), 03-07.10.2006., Vodice, Croatia

Hedgehog-Patched Alterations in different tumors and malformations. Inaugural meeting:Hedgehog-Gli signaling in Development and Disease European Network. 7.07.2005.Geneva

Molecular genetics of hereditary breast cancer, Croatian Academy of Sciences and Arts (HAZU)HAZU 29.09.2005, Zagreb

Role of the Hedgehog/Patched signaling pathway in oncogenesis, Alterations of PTCH are attributed to the pathway activation in ovarian fibromas and dermoids.10 th International Congress on Advances in Oncology, 8th International Symposium on Molecular Medicine, Kreta,Grčka 13-15.10.2005.

Tumor suppressor genes in cancer and developmental malformations, 2nd congress of croatian society of oncology with international participation, 20.-23.6.2004.Opatija

Molecular genetics of skin tumors, 3rd Croatian Congres of Human genetics with international participation, 3-4.09.2003. Zagreb

Signal transduction in oncology, Medical Winter School "Oncology Update" IUC, Zagreb, Dubrovnik 26.11.2001.

Molecular and genetics events in basal membrane, DEBRA Croatia, Cavtat 11.10.2001.

Involvement of Shh/Ptch signal pathway in development and cancer. Molecular medicine Signal Transduction Meeting, IUC Dubrovnik 1.06.2000.

Molecular basis of Gorlin syndrome. Molecular Medicine-Signal transduction.IUC Dubrovnik 13.10.1998

Tumor suppressors in development and cancer. Life Sciences Conference 1998, Martuljek, Slovenia 19-24.09.1998.

Role of Tumor Suppressors in the Development of Nevoid Basal Cell Carcinoma Syndrome and Lung Cancer-a Cancer Genetic Approach.Klinikum der Philipps-Universitat Marburg, Germany 6.07.1998. Marburg, Germany

Molecular evidence of chromosome 9q22.3 deletions in Gorlin syndrome region.A two- hit mechanism for developmental defects.New aspects in molecular medicine 4.Human molecular genetics., 19.09.1997. HAZU, Zagreb

Positional and functional cloning. Medical Summer School Dubrovnik.Introduction into Molecular Medicine.16.09.1997. IUC, Zagreb

The gorlin syndrome gene: a new tumor suppressor in cancer and developmental defects. 1st Congress of the Genetics Society of Slovenia with international participation. Ljubljana, Slovenia 2-5.09.1997.

The Gorlin syndrome gene on 9q22.5th Nordic Genome Initiative Workshop, Laugarvatn, Icelnd, 14-17.06.1996.

A two-hit model for developmental defects in Gorlin syndrome(Nevoid Basal Cell Carcinoma Syndrome). New aspects in molecular oncology, HAZU, Zagreb27.10.1995

