

# Krešimir Pavelić

## *Curriculum Vitae and List of Publications*

### Name and Address

Krešimir Pavelić, Department of Biotechnology, University of Rijeka, Radmile Matejčić 2 Str., HR-51000 Rijeka and Juraj Dobrila University of Pula, Zagrebačka 30, HR-52100 Pula, Croatia

### Personal Data

Born July 19, 1952. in Slavonski Brod, Croatia  
Croatian citizen

**Summary.** Born in Slavonski Brod, Croatia 1952. Medical doctor, dean, Faculty of Medicine, University Juraj Dobrila, Pula, professor of molecular biology, former head and establisher, Department of Biotechnology, University of Rijeka, former director and establisher of Division of Molecular Medicine, Ruđer Bošković Institute.

Selected international and national scientific functions: Secretary General European Molecular Biology Conference (EMBC, 2008-2013); EMBO member (2002); member, Ordinary member Euroean Academy of Sciences and Arts (2019), Croatian Academy of Sciences and Arts (1992); Croatian Academy of Medical Sciences (1994); vice-president, EMBC (2004-2008); member, Standing Committee, European Medical Research Council, European Science Foundation (2004-2012); President, National Scientific Council, Republic of Croatia (2007-2012); former member of the parliamentary committee for national scientific awards, expert for molecular medicine of the Transradical party in the European Parliament, *ex officio* member, EMBO Council (2008-2013); Council member, European Association for Cancer Research (1999-2003); *Director*, National Cancer Research Program, Ministry of Science and Technology, Republic of Croatia (1997-2001); Dean (President), Scientific Council, Ruđer Bošković Institute (1987-1992); Member, Senat, University of Zagreb (1987-1992); Member, Senat, University of Rijeka (2015-2018); Member, Croatian Association of the Club of Rome (1995); President, Section of Molecular Genetic, Croatian Society of Human Genetic (1995-1997); Member of the Scientific Board of the International Musculoskeletal Foundation (IMSF) (2021).

Visiting professor, Roswell Park Memorial Institute, Grace Cancer Drug Center, Buffalo, N.Y. USA (1984-1986); Visiting professor, University of Hamburg, University Clinic Eppendorf, Institute for Physiological Chemistry, Hamburg, Germany (1988); visiting professor and Fulbright fellow, University of Cincinnati, College of Medicine, Department of Pathology and Laboratory Medicine, Cincinnati, OH, USA(1990); visiting professor and Fulbright fellow, Mayo Clinic and Foundation, Division of Developmental Oncology Research Rochester, MN. U.S.A. (1991).

He has published 300 scientific papers in world top scientific journals and several invited review papers and chapters in prestigious journals and book published by American and European publishers. He significantly contributed to the understanding of biology of the transformed cell and development of new potential drugs and medical devices (12.000 citations).

Many international and national honors and awards. Leader of some American, European and national scientific and developmental projects. Invited and plenary speaker in more than 200 international scientific conferences. Mentor of 85 master and doctoral thesis.

### Scientific Degrees

Full Professor (Senior Scientist), Ruđer Bošković Institute, Zagreb, March, 1985.

Associate Professor (Senior Research Associate), Ruđer Bošković Institute, Zagreb, october, 1981.

Assistant Professor (Research Associate) Ruđer Bošković Institute, Zagreb, april, 1980.

Ph.D. Thesis "Combined chemotherapy and immunotherapy of mice with malignant tumors". School of Medicine, University of Zagreb, 1979.

M.Sc. Thesis "Effect of immunosuppression on the growth of six murine tumors", Center for Postgraduate Studies, University of Zagreb 1977.

M.D. School of Medicine, University of Zagreb, Croatia - july 1975.

### **Teaching Degrees**

Full professor, Juraj Dobrila University of Pula, 2018.

Full professor, University of Rijeka, 2012.

Full professor, University of Zagreb, 1990

### **Teaching and Research Experience**

*Research Assistant*, Ruđer Bošković Institute, Department of Biology and Medicine, University of Zagreb 1975-1979.

Research on the tumor immunology and experimental cancer chemotherapy.

*Assistant Professor*, Ruđer Bošković Institute, April 1980.

Elucidation of the physiological and cellular mechanisms underlying induction of tumor associated hormonally active substances which are involved in regulation of tumor growth.

*Senior Research Associate*, Ruđer Bošković Institute, October 1981.

Growth factors and positive feed back mechanism of tumor growth. Autocrine tumor growth regulation.

*Full Professor*, Ruđer Bošković Institute, 1985.

Growth factors and oncogenes in embryonal and tumor growth, cancer genetic.

*Professor of Anatomy and Physiology*, School of Pharmacy and Biochemistry, University of Zagreb 1982-1989.

*Professor of Molecular Biology*, School of Pharmacy and Biochemistry, University of Zagreb, 1990-2007.

*Professor of Molecular Biology*, Department of biotechnology, University of Rijeka, 2007-.

## **Teaching - Postgraduate Studies**

*Doctoral study* Medicinal Chemistry, Modul Molecular Medicine, Department of Biotechnology, University of Rijeka, 2010-present.

*Postgraduate and Postdoctoral Study, School of Medicine, University of Zagreb*, 1998-present  
Molecular Oncology

*Postgraduate Study Biomedicine, School of Medicine University of Rijeka*, 1996-present  
Molecular oncology

*Postgraduate Study in Medical Microbiology, School of Medicine, University of Zagreb*, 1994/1995  
Principles and application of recombinant DNA technology in medical microbiology

*Postgraduate Study in Cytology, School of Medicine, University of Zagreb*, 1994-present  
Molecular genetic of cancer

*Postgraduate Study in Medical Genetics, School of Medicine, University of Zagreb*, 1994-present  
Molecular genetic, cancer genetic

*Postgraduate Study in Neurology, School of Medicine, University of Zagreb*, 1993-1994  
Cancer genetics

*International Postgraduate Study in Diabetology, School of Medicine, University of Zagreb*, 1988-1989  
Growth factors, hormones and cancer

*Postgraduate Study in Endocrinology, School of Medicine, University of Zagreb*, 1988-1989  
Growth factors

*Postgraduate Study in Predclinical and Experimental Pharmacology and Clinical Pharmacology. School of Medicine, University of Zagreb*, 1987-1989  
Molecular pharmacology

*Postgraduate Study in Oncology, School of Medicine, University of Zagreb*, 1977-present  
Hormones and cancer, growth factors, oncogenes, new approaches in anticancer therapy, new diagnostic procedures

## **Selected Executive and Administrative International Functions**

*Member, European Science Foundation College of Review Panel Members*, 2016-present

*Secretary General*, European Molecular Biology Conference (EMBC), 2008-2013.

*Ex Officio Member*, EMBO Council 2008-2013.

*Vicepresident* European Molecular Biology Conference (EMBC), 2004 – 2008.

*Council member*, European Molecular Biology Laboratory, 2006-present

*Member*, Expert Advisory Board, Czech Science Foundation, 2018-present

*Member*, European Science Foundation College of Review Panel Members, 2016-present

*Member*, Standing Committee, European Medical Research Council, European Science Foundation 2004-2012

*Member*, Strategic Working Party EMBC/EMBO, 2004-present

*Member*, Nahrstoff Akademie Salzburg, scientific board, 2003-present

*Delegate*, European Molecular Biology Conference, 2002-present

*Member of Executive Committee*, European Association for Cancer Research 1999-2003

### **Selected Executive and Administrative Domestic Functions**

*Member*, Senat, University of Rijeka, 2016-present

*Head*, Department of Biotechnology, University of Rijeka, 2008-present

*President*, National Scientific Board Republic of Croatia, 2007-2012

*President*, Gouverning Board, Institute for Medical Research and Occupational Medicine, Zagreb, 2005-2011

*Member*, Gouverning Board, Agency for Science and High Education, Ministry of Sciences, Education and Sports, 2005-2012

*Member*, National Scientific Board, 2004-2012.

*Member and vicepresident*, National Board for Scientific Awards, Biomedicine, 2001-2005.

*Assistant Director General*, Ruđer Bošković Institute, 1999

*Member*, National Board for Biomedicine, Ministry of Science and Technology, Republic of Croatia, 1995-1998.

*President*, Section of Molecular Genetic, Croatian Society of Human Genetic, 1995-1997.

*Member*, Croatian Association of the Club of Rome, 1995-present.

*Director*, Division of Molecular Medicine, Ruđer Bošković Institute, 1993-2009

*Director*, National Cancer Research Program, Ministry of Science and Technology, Republic of Croatia, 1997-2001.

*Head*, Laboratory of Molecular Oncology, Division of Molecular Medicine, Ruđer Bošković Institute, 1991-1997.

*Member*, Council of the School of Medicine, University of Zagreb, 1991-1992

*Member*, National Board for Scientific Awards, Republic of Croatia, 1988.

*Dean (President)*, Scientific Council of the Ruđer Bošković Institute, 1987-1992.

*Member*, Senat, University of Zagreb, 1987-1992.

*Member*, Scientific Council of the University of Zagreb (Board of deans) 1987-1992.

*President*, Scientific Council, Department of Experimental Biology and Medicine, Ruđer Bošković Institute, 1986-1988

### **Current Membership in Scientific Societies**

Croatian Immunological Society  
Croatian Cancer Society  
Croatian Genetical Society  
Croatian Physiological Society  
Croatian Association of Human Genetics  
Croatian Endocrinological Society  
European Association for Cancer Research  
International Stress Management Association  
European Society of Human Genetics  
Croatian Bioethical Society  
Croatian Society for Proteomics

### **Visiting Research Fellow**

*Visiting Professor, Fulbright fellowship, Mayo Clinic and Foundation, Division of Developmental Oncology Research Rochester, MN. U.S.A. 1991*

*Visiting Professor, Fulbright fellowship, University of Cincinnati, College of Medicine, Department of Pathology and Laboratory Medicine, Cincinnati, OH, U.S.A. 1990.*

*Visiting Professor, University of Hamburg, University Clinic Eppendorf, Institute for Physiological Chemistry, Hamburg, Germany, 1988.*

*Visiting Professor, Roswell Park Memorial Institute, Grace Cancer Drug Center, Buffalo, N.Y. U.S.A. 1984-1986.*

*Visiting fellow, Roswell Park Memorial Institute, Buffalo, N.Y. U.S.A. 1978.*

### **Honors and Awards**

*Croatian Government State Award for 1998.*

*Croatian Academy of Medical Sciences, Annual award "Ante Šerger" for best scientific paper published in 1996.*

*Yamagiwa-Yoshida Memorial Award, International Union Against Cancer, 1993.*

*Fulbright Fellowship of U.S. Government 1990 and 1991.*

*University of Hamburg Fellowship 1988.*

*Roswell Park Memorial Institute Fellowship 1984-1986.*

*Vuk Vrhovac Prize for research in diabetology (Diabetology Section of Croatian Medical Association) for 1982.*

*Federal Prize for Young Scientists (under 30) for 1978.*

*Drago Perović Prize for students of the School of Medicine, University of Zagreb for 1973.*

*University of Zagreb May Prize for research performed by students for 1972. and 1973.*

### **Membership in Academies**

*Member of European Academy for Sciences and Arts, 2018.*

*Member of European Molecular Biology Organization (EMBO), 2002.*

*Member of Croatian Academy of Medical Sciences, 1994.*

Member of Croatian Academy of Sciences and Arts, 1992.

Member of International Academy of Sciences and Arts in Bosnia and Herzegovina, 2021.

### **Membership in the Editorial Boards in Scientific Journals**

*Advances in Genetic Engineering and Biotechnology*, Boston, MA, USA  
member of editorial board since July 2014

*Archives of Industrial Hygiene and Toxicology*, Zagreb, Croatia

*Acta Medica Academica*, Journal of Department of Medical Sciences of  
Academy of Sciences and Arts of Bosnia & Herzegovina, Sarajevo.

*MD - Medical Data*, Mostar, Zemun, Serbia, June 2011.

*Journal of Oncology*, Hindawi publishing Group, member of editorial board,  
May 2008.

*Balkan Journal of Medical Genetics*, member of editorial board since 2002.

*Medical Science Monitor*, member of editorial board since 2002.

*Pathology Oncology Research*, Budapest, Hungary, member of editorial  
board, since 1996

*Libri Oncologici*, Zagreb, Croatia, member of editorial board, since 1992.

*Science, Art & Religion*, Editor-in-chief, 2023.

### **External Reviewer for International Scientific Organizations**

European Science Foundation

ESF-EMBO Symposia Review Panel

Slovenian Research and Innovation Agency

### **Grants Awarded (Principal Investigator)**

1. *Development of Technology for Radioimmunoassay Components for Measuring Hormone Levels in Blood*. Ministry of Science, Technology and Information, Republic of Croatia, Zagreb, 1982., Grant No. V-683/1-82

2. *Development of Technology for Production of Fetal Calf and Newborn Calf Serum for Cell Culture System.* Ministry of Science, Technology and Information, Republic of Croatia, Zagreb, 1983. Grant No. V-511/1-83
3. *Isolation and Characterization of Tumor Produced Substance Immunologically Cross Reactive with Insulin.* BRSG Grant Committee, Roswell Park Memorial Institute, Buffalo, Department of Health, State of New York, 1984-1985.
4. *Differentiation and Growth Control of Normal and Tumor Cells.* Ministry of Science, Technology and Information, Republic of Croatia, Zagreb, 1986-1990. Grant No. 2.04.01.02.01
5. *Substance Immunologically Cross Reactive with Insulin.* Commission of the European Communities. 1989 - 1992. Grant No. I1-0334-YU/A
6. *Growth Factors.* Yugoslav Government. 1990- 1995. Grant No. P-354/6
7. *Expression and Role of Oncogenes and Growth Factors in Malignant Tumors.* Ministry of Science, Technology and Information, Republic of Croatia, Zagreb, 1991-1993. Grant No. 1/08/144
8. *Automatic synthesis of DNA.* Institute Open Society Croatia (Soros Foundation), Zagreb, 1993.
9. *Establishment of the Eastern and Central European Human Tumor Bank Network.* Institute Open Society Croatia (Soros Foundation), Zagreb, 1994.
10. *National Cancer Research Program,* Ministry of Science and Technology, Republic of Croatia, 1997- present, Grant No. P-9811
11. *Molecular Genetic Basis of Metastasis,* Ministry of Science and Technology, Republic of Croatia, 1997- present, Grant No. P-1104
12. *Establishing of toxicological and antitumoral effects of potential agents against tumors.* Ministry of Science and Technology, Republic of Croatia, 2001- present, Grant No. 00981499
13. *Effect of transduction of genes/proteins on signal transduction in tumor cells.* Ministry of Science and Technology, Republic of Croatia, Zagreb, Project No.. 0098093, 2001-2006
14. *Center for Integrative Genomics. Technology Related Research and Development Projects (TEST). Program Core,* Ministry of Science, Education and Sports, Republic of Croatia, Zagreb, Project No J-1/2004.
15. *Molecular characteristics of miofibroblasts in Dupuytren disease.* Ministry of Science, Education and Sports, Republic of Croatia, Zagreb, Project No 098-0982464-2393.



16. *Development of drug against Dupuytren contracture*. National Fund for Development and Employment, Zagreb, Croatia, Project No 450-05/06-01/0003.

5 R&D contracts with international industrial partners (2009-2019)

## Coorganizer of International Conferences

- 1<sup>st</sup> International Conference on Signal Transduction  
8-11 October 1998, Cavtat-Dubrovnik, Croatia
- 2<sup>nd</sup> International Conference on Signal Transduction  
26-31 May 2000, Cavtat-Dubrovnik, Croatia
- 3<sup>rd</sup> International Conference on Signal Transduction  
May 2002, Cavtat-Dubrovnik, Croatia
- 4<sup>th</sup> International Conference on Signal Transduction  
May 2004, Cavtat-Dubrovnik, Croatia
- 1<sup>st</sup> International Conference on Mechanisms of Action of Nutraceuticals  
14-19 October, 2001, Cavtat-Dubrovnik, Croatia
- 2<sup>nd</sup> International Conference on Mechanisms of Action of Nutraceuticals. October, 2002, Krems, Austria
- 3<sup>rd</sup> International Conference on Mechanisms of Action of Nutraceuticals  
November, 2004, Maggie Walley, North Caroline, USA
- 2<sup>nd</sup> EMBO Sectoral Meeting on Molecular Medicine  
19-22. June, 2003, Cavtat-Dubrovnik, Croatia
- 2<sup>nd</sup> International conference on regenerative orthopaedics and tissue engineering. 20-22, 09. 2012, Opatija, Croatia. (Co-president).

## Books

### Author

1. Pavelić K., *Kako pobijediti rak*, Globus, Zagreb, 1989
2. Pavelić K., *Kako spriječiti rak*, Globus/ Ministarstvo zdravstva Republike Hrvatske/ Hrvatska liga protiv raka, Zagreb, 1996.

3. Pavelić K., Schimpf S., Meyer-Wegener J.: *Zeolites: Energy from the Earth's Primary Rock*. VIP Sante, Luxemburg, 2002, English edition;
4. Pavelić K., Schimpf S., Meyer-Wegener J.: *Zeolithe: Die Kraft aus dem Urgestein der Erde*. VIP Sante, Luxemburg, 2002, German edition;
5. Pavelić K., Schimpf S., Meyer-Wegener J.: *La Zeolite: La force de la roche primitive terrestre..* VIP Sante, Luxemburg, 2002, French edition;
6. Pavelić K., Schimpf S., Meyer-Wegener J.: *As Zeolitas: A forza que provem da rocha primitiva da Terra*. VIP Sante, Luxemburg, 2002, Portuguese edition;
7. Pavelić K., Schimpf S., Meyer-Wegener J.: *Le Zeoliti: Forza dalla pietra primigenia della terra*. VIP Sante, Luxemburg, 2002, Italian edition.
8. Pavelić K.: *Čuda moderne medicine*. Nakladni zavod Globus, Zagreb, 2004.
9. Pavelić K.: *Wunder der modernen Medizin*. Nakladni zavod Globus, Zagreb, 2004.
10. Pavelić K. & Pavelic Kraljevic S. *Zeolites in Medicine. Current Achievements and Research of Zeolites in Medicine*. Nova Science Publishers, New York 2019.

#### **Book Editor**

1. Ikić D, Pavelić K, Spaventi R: *Onkogeni i faktori rasta*, JAZU/Globus, Zagreb, 1989.
2. Pavelić K, Spaventi R: *Molekularna onkologija*, HAZU/Globus, Zagreb, 1992.
3. Polšek D, Pavelić K: *Društveni značaj genske tehnologije*, Institut društvenih znanosti Ivo Pilar, Zagreb, 1999.
4. Kurjak A, Stavljenić-Rukavina A., Pavelić K.: *Prenatalna dijagnostika i terapija*. Tonimir, Varaždinske Toplice, 2000.
5. Bodiroga N, Rukavina D, Pavelić K Sanger GC eds.: *Personalized medicine, a new medical and social challenge*. Springer, Dordrecht, Heidelberg, London, New York, 2016.
6. Bodiroga N, Rukavina D, Pavelić K Sanger GC eds.: *Personalized Medicine in Healthcare System. Legal, Medical and Economic*

Implications. (Europeanization and globalization). Springer International Publishing New York 2019.

### International Initiatives

- K. Pavelic: Initiator of Croatian membership to European Molecular Biology Laboratory as organization's 19<sup>th</sup> Member State, 29.06.2006.
- K. Pavelic: Science Policy Briefing: **Human stem cell research and regenerative medicine**. European Medical Research Council, European Science Foundation, 52<sup>nd</sup> plenary meeting, London, United Kingdom, 22.-23. April, 2008.
- K. Pavelic: Forward Look: **Personalized medicine for the European citizen – towards more precise medicine for the diagnosis, treatment and prevention of disease**. European Medical Research Council, European Science Foundation, 55<sup>th</sup> plenary meeting, Copenhagen, Denmark, 13.-14. October, 2009.

### Selected Invited or plenary presentations at international meetings

1. Pavelić K.: Growth of tumors in diabetic hosts. *First International Symposium on Basic Diabetology*, 22.-28.01.1984. Porlamar, Venezuela
2. Pavelić K.: Extracellular matrix: A new in vitro system. *Roswell Park Memorial Institute*, 5.11.1985, Buffalo, New York, USA
3. Pavelić K.: Nerve growth factor (NGF) induced differentiation of human neuroblastoma cells biochemical properties of methionine 5-enkephalin and its receptors. *Conference Embryonic Origins and Control of Neoplasia*, 13.-14.10.1986., Dubrovnik
4. Pavelić K., Čabrijan T., Levanat S.: Autocrine tumor growth regulation by the IGF I and the EGF. *Third International Congress on Hormones and Cancer*, 9. 1987., Hamburg, Germany
5. Pavelić K.: Induction of tumor cell differentiation in different human cell lines. *Institut for Physiological Chemistry, University Clinic Eppendorf, University of Hamburg*, 11.2.1988., Hamburg, Germany
6. Pavelić K.: A new method for tumor cell cultivation on artificial basement membrane. *Department for Molecular Endocrinology, University Clinic Eppendorf, University of Hamburg*, 23.8.1988., Hamburg, Germany
7. Pavelić K.: A substance immunologically cross reactive with insulin, *University Clinic Eppendorf, University of Hamburg*, 24.8.1988., Hamburg, Germany

8. Pavelić K.: Extracellular matrix: A new model for the in vitro cultivation of primary human tumor explants. *Mayo Clinic*, 11.5.1990., Rochester, Minnesota, USA
9. Pavelić K.: Immunohistochemical detection of C-MYC oncoprotein in paraffin-embedded tissue. *University of Cincinnati, College of Medicine*, 17.8.1990., Cincinnati, Ohio, USA
10. Pavelić K.: Molecular mechanism of cell activation. 35. *Congresso Nazionale Societa Italiana di Biochimica*, 29.09.- 3.10.1990., Bari, Italy
11. Pavelić K.: Oncogene and growth factors in autocrine control of tumor proliferation. *Molekularna genetika v medicini*, 22. *Memorijalni sastanak profesora Janeza Plečnika* 12. - 13.12.1991., Ljubljana, Slovenia
12. Pavelić K.: c-erb B-2/neu oncogene: A potencial prognostic value. *University of Cincinnati, College of Medicine*, , 28.10.1992. Cincinnati, Ohio, USA
13. Pavelić K.: New aspects in molecular medicine, uvodno predavanje. *New Aspects in Molecular Medicine 2*, Hrvatska akademija znanosti i umjetnosti, Zagreb, 5.11.1993., Cincinnati, Ohio, USA
14. Pavelić K.: Multiple genetical changes in malignant insulinoma. *Cancer Research Institute, Slovak Academy of Sciences*, 20.3.1995., Bratislava, Slovakia
15. Pavelić K.: Expression of nm23 gene in human tumors. *College of Medicine, University of Cincinnati*, 30.3.1994., Cincinnati, Ohio, USA
16. Pavelić K.: Multiple genetical alterations in malignant insulinomas. *Dnevi medicinske genetike z mednarodno udeležbo*. 19.-20.12. 1995., Ljubljana, Slovenia
17. Pavelić K.: Multiple genetical changes in neuroendocrine tumors. *Oncogenes and Tumor-Suppressor Genes*. 2.-7.12.1996., Cincinnati, Ohio, USA
18. Pavelić K.: Tumor.suppressor gene NM23-H1 - A potential new tumor marker. *15th International Conference on Tumor Markers "Clinical Cancer Genetics and Biological Therapies"*. 14-17. 6. 1998, Lugano Switzerland
19. Pavelić K.: Metastasis repressor gene nm23-H1 - a potential new genetical marker. The International Congress on Malformations and Rare Tumors of the Head and Neck., 24.-27. 11. 1998. Zagreb, Croatia
20. Pavelić K.: Metastasis repressor gene nm23-H1 – a potential new genetical marker. Österreichische Biochemische Gesellschaft, Österreichische Gesellschaft f. Genetik und Gentechnik, Österreichische Gesellschaft f. Klinische Chemie, 29.04.1999., Graz, Austria

21. Pavelić K.: Molecular genetics of malignant insulinomas. International Conference on Disease of Pancreas, Biliary Tract and Duodenum, 07.05.1999., Ljubljana, Slovenia
22. Pavelić K.: Zeolites in Medicine. Gesellschaft fur Biologische Krebsabwehr E.V., Krebserkrankungen im Jahr 2000., 04.03.2000., Chemnitz, Germany
23. Pavelić K.: Breast cancer genetics and biology. Second Central European Oncology Congress. 27.-30.06. 2000. Opatija, Croatia
24. Pavelić K.: Molecular genetics of breast cancer. 2<sup>nd</sup> Congress of the Slovenian Genetic Society. 13.-17.09. 2000. Bled, Slovenia
25. Pavelić K.: Increased activity of nm23-H1 gene in squamous cell carcinoma of the head and neck is associated with advanced disease and poor prognosis. 31<sup>st</sup> Memorial Meeting for Professor Janez Plečnik. 7.-8.12. 2000. Ljubljana, Slovenia
26. Pavelić K.: New break-through in gastrointestinal cancer. Conference on "Current Perspectives on Biomolecular Indicators and Clinical Management of Bladder, Breast, Colorectal and Lung Cancer". 18.-22. 04. 2001. Erice, Italy
27. Pavelić K.: Biomedical applications of zeolites. 13<sup>th</sup> International Zeolite Conference. 8.-13.07. 2001. Montpellier, France
28. Pavelić K.: Arguments for human therapeutic cloning. Conference on Stem Cells: for the Freedom of Research in Europe. European Parliament, 18.-19.09. 2001. Bruxelles, Belgium
29. Pavelić K.: Molecular genetics in oncology. SEE – Conference on Molecular Medicine, 6-8,12. 2001., Skopje, Macedonia
30. Pavelić K.: Globalization and scientific freedom in molecular medicine. 38<sup>th</sup> Congress of the Transnational Radical Party, 4. - 7. 4. 2002. Geneva, Switzerland
31. Pavelić K.: Adjuvant effect of natural clinoptilolite in anticancer therapy. 6<sup>th</sup> International Conference on the Occurrence, Properties and Utilization of Natural Zeolites. Thessaloniki, 31.5. – 3.6. 2002. Greece
32. Pavelić K.: New developments in molecular oncology. 3<sup>rd</sup> Central European Oncology Congress. Opatija 19.06-22.6. 2002.
33. Pavelić K.: Could medicine benefit from zeolites: Molecular mechanisms of clinoptilolite activity. 2<sup>nd</sup> International Conferenc on Mechanisms and Actions of Nutraceuticals. Krems 6.10.-9.10, 2002. Austria

34. Pavelić K.: Involvement of insulin-like growth factor family of genes in human cancer. EMBO Conference Frontiers of Molecular Biology. Oslo 11.10.-14.10. 2002, Norway.
35. Pavelić K.: Molecular genetics of breast cancer. 2<sup>nd</sup> Meeting of the Molecular Medicine Network in SE Europe. University Hamburg and DAAD Stability Pact for SE Europe. Skopje, 18. 10. 2002. Macedonia.
36. Pavelić K.: Molecular mechanisms of clinoptilolite action at cellular level. Institute of Mineralogy, University of Salzburg, Salzburg, 23. 10. 2002. Austria.
37. Pavelić Kresimir: International Conference on Bioethics in Central and Eastern Europe. Lithuanian National Commission for UNESCO. Vilnius, 11.-12. 11. 2002. Lithuania
38. Pavelić K.: The role of insulin-like growth factor family in cancer development and growth. Technical University Dresden, Institute for Zoology, Faculty of Science, Department of Biology, Dresden, 19.11. 2002. Germany.
39. Pavelić K.: Arguments for and against human reproductive and therapeutic cloning. Scientific, ethical, religious dilemmas on the embryo status and its cloning, Sarajevo, 15.02. 2003. Bosnia and Herzegovina.
40. Pavelić K.: Functional genomics in perinatal medicine. Scientific, ethical, religious dilemmas on the embryo status and its cloning, Sarajevo, 15.02. 2003. Bosnia and Herzegovina.
41. Pavelić K.: Opinion on EMBO Research Awards and about European Research Council. Member of Preparative Working Party for EMBC/EMBO on the Section of Strategic Working Party EMBC and Life sciences in the European Research Council. The scientist's opinion. FEBS, EMBO and UNESCO. Paris 18. and 19.02.2003. France.
42. Pavelić K.: Mistakes and wrong ways in biomedical research. 12<sup>th</sup> Meeting on Medicine and Law. Maribor, 27.- 28.03.2003. Slovenia.
43. Pavelić K.: New aspects in cancer genetics and role of functional genomics in oncology. Health Perspective in 21.<sup>st</sup> Century. Banja Luka, , 4.-8. 06. 2003., Bosnia and Herzegovina.
44. Pavelić K.: Nanotechnology and molecular medicine. The 3<sup>rd</sup> European-American School in Forensic Medicine and Mayo Clinic Course in Advanced Molecular and Cellular Medicine. Zagreb, 1.-5.09.2003, Croatia.
45. Pavelić K.: New methods of functional genomics and changes in the regulations of drug registration. 13<sup>th</sup> Meeting on Medicine and Law 26.-27.03.2004. Maribor, Slovenia.

46. Pavelić K.: New developments in molecular oncology. 4<sup>th</sup> Central European Oncology Congress. Opatija 23.06-26.6. 2004.
47. Pavelić K.: Nanoporous materials in molecular medicine: cellular and molecular effects. 3<sup>rd</sup> International Conference on Mechanisms of Action of Nutraceuticals. Maggie Valley, Waynesville, N.C. USA, 11.-14. 11. 2004.
48. Pavelić K.: Life Science in the Europe of the Future. Joint Anniversaries EMBO, EMBC, EMBL. Mannheim, Germany, 15. 11. 2004.
49. Pavelic K.: Nanomedicine - Medicine on a small scale. Plenary lecture. Nanotechnology, Drug Delivery System. Chiang Mai, Thailand, 21. - 22. 02. 2005.
50. Pavcelic K.: Accelerating drug discovery: The role of omics technology. Plenary lecture. Free Radical School. Chiang Mai, Thailand, 21. - 22. 02. 2005.
51. Pavelic K.: Integrative genomics in cancer research and clinical practice. Human Molecular Genetics - Research and Testing Update. DAAD Stability Pact, University of Hamburg , University of Sarajevo. Sarajevo, Bosnia and Herzegovina, 25.-27. 02. 2005.
52. Pavelić K.: Aggressive and criminal behavior, molecular medicine and new judicial system. "Medicine and Law". Maribor Slovenia 18. - 19. 3. 2005.
53. Pavelic K.: Strategies for supporting life sciences research in scientifically developing countries in Europe. EMBC/EMBO Workshop on Advancing life sciences research in Europe. Berlin, Germany, 18. 04. 2005.
54. Pavelić K.: Functional genomics and drug discovery. International Symposium on Genomics and Proteomics in Experimental and Clinical Oncology. Novi Sad. Serbia and Monte Negro , 30.09.2005.
55. Pavelić K.: Omics revolution in medicine: The second generation will benefit from breakthrough in science. 13<sup>th</sup> Congress of European Union for School and University Health and MedicineDubrovnik, Croatia, 12.-15.10. 2005.
56. Pavelić K.: Cancer Research meets functional genomics – what has been accomplished so far? Molecular Diagnostic in Medicine. Ljubljana, Slovenia 30.11. – 2. 12. 2005.
57. Pavelić K.: Integrative genomics in medicine. Molecular Biology in Medicine. Academy of Sciences and Arts of Bosnia and Herzegovina. Sarajevo, Bosnia and Herzegovina, 22. 12. 2005.
58. Pavelić K.: Problems and ethical dilemmas in genetical research and diagnostic. "Medicine and Law". Maribor Slovenia 24.-25. 3. 2006.



59. Pavelić K.: Molecular profiling of tumors: from benchside to bedside. 1<sup>st</sup> meeting of the South Eastern European Molecular Biology and Genetics Network. Macedonian Academy of Sciences and Arts. Skopje, Macedonia, 11.-12.04.2006.
60. Pavelić K.: Integrative genomics in research and treatment of breast cancer. 14<sup>th</sup> world congress on breast cancer. Zagreb, Croatia, 18.-21.05. 2006.
61. Pavelić K.: Molecular profiling of tumors. International Conference From Solid State to Biophysics III. Cavtat, Croatia, 24.06.-1.07.2006.
62. Pavelić K.: FHIT gene in thyroid gland lesions. 4<sup>th</sup> International Conference Multidisciplinary Approach on Thyroid Gland, Salivary Glands and Parapharyngeal Space Tumors. Zagreb, Croatia 10.11.2006
63. Pavelic K.: Recent highlights in molecular medicine. Joanneum Research Meeting. Graz, Austria 28.02.2007.
64. Pavelic K.: Pavelić K.: Stem cells in therapy. 16th "Medicine and Law". Maribor Slovenia 23. – 24. 3. 2007.
65. Pavelić K.: Casting Lights on Molecular Events Underlying Tumor Invasion and Metastasis: What can be Seen from the "Omics" point of View? 7th Slovenian Meeting of the Slovenian Biochemical Society with International Participation. Maribor, Slovenia, 26.-29. 09. 2007
66. Pavelić K.: Omics approach in cancer diagnosis and therapy. Systhers Inremos Project: Recent developments in tumor diagnosis and therapy. Piran, Slovenia, 2. – 3. 11. 2007.
67. Pavelić K.: The role of integrative genomics/proteomics in the detection and treatment of metastatic breast cancer. 5th Conference on Experimental and Translational Oncology. Kranjska Gora, Slovenia, 26.-30. 03. 2008.
68. Pavelic K.: Stem cell research: Status, prospects and prerequisites. "Medicine and Law". Maribor Slovenia 28.-29. 3. 2008.
69. Pavelić K. and Varela-Nieto I.: Stem cells and tissue engineering. European Medical Research Council Forward Look. EMRC 52<sup>nd</sup> Plenary meeting. The Royal College of Physicians. London, UK, 22-23. 04.2008.
70. Pavelic K.: Improved navigation and precise drug delivery (contributed talk). HotNanoTopics. Nanostructured bio-interfaces. Portorož, Slovenia, 26.-30.05, 2008.
71. Pavelić K.: Casting light on molecular events underlying metastasis of cancer: what can be seen from the –omics point of view. 38<sup>th</sup> Annual meeting of European Environmental Mutagen Society (EEMS) Cavtat, Croatia, 21.-25.09.2008.

72. Pavelić K.: Presentation of the ESF-EMRC Science Policy Briefing on stem cell research. European Science Foundation, European Medical Research Council. Paris, France, 13. 10. 2008.

73. Pavelić K.: Forward Look: Toward the preventive (presymptomatic) medicine in the light of high-throughput (-Omics) techniques. European Medical Research Councils (EMRC) 55<sup>th</sup> Plenary Meeting of the Standing Committee. Copenhagen, Denmark, 13-14. 10. 2009.

74. Pavelić K.: Croatian position on developing scientific strategy: from the perspective of small country. UNESCO General Conference 35<sup>th</sup> session. Major Program II – Natural Sciences. Paris, 15-16. 10. 2009.

75. Pavelic K: -Omics in Personalized Medicine. Invited introductory lecture. ESF Forward Look – Scoping Workshop on “Personalized Medicine for the European Patients” Brussels 1.07.2010.

76. Pavelić K.: Clinoptilolite: Cellular and molecular effects on tumor cells. Zeolite 2010. 8<sup>th</sup> International conference on the occurrence, properties and utilization of natural zeolites. Sofia, Bulgaria 10-18. 07. 2010.

77. Pavelić K.: Forward Look: High throughput in personalized medicine for European citizens. Strasbourg. 57. Plenary Meeting of the European Medical Research Council, European Science Foundation. European Parliament. Strasbourg 13-14. 10. 2010.

78. Pavelić K.: Personalized medicine and high-throughput approach: toward new medical practice. Medicine and Law, Maribor, Slovenia, 25.-26.03. 2011.

79. Pavelić K: Forward Look: Personalized Medicine for the European Citizen. European Medical Research Council 40<sup>th</sup> Anniversary. Strasbourg, France, 29.09.2011.

80. Pavelic K: Clinoptilolite: cellular and molecular effects relevant for human treatment. Ospedale di Campi Salentina “San Pio de Pietreleina. Lecce, Italija, 18.05.2012.

81. Pavelic K: Forward look on biotechnology. Information sources in biotechnology. European Commission project SLING (Serving life-science information for the next generation. 7.th Framework programme. Rijeka, 21. 06. 2012.

82. Pavelić K: Human Stem Cell Research and Regenerative Medicine – A European Perspective on Scientific, Ethical and Legal Issues. 2<sup>nd</sup> International conference on regenerative orthopaedics and tissue engineering. Opatija, Croatia 20-22, 09. 2012,

83. Pavelić K: The ex-post evaluation of the impact of research projects and funding programmes. Workshop, European Research Council „The ex-post

evaluation of the impacts of research projects and funding programmes”, Brussels, Belgium, 29-30.11. 2012,

84. Pavelić K.: Programed and induced cell death: nanomedicine as an argument against euthanasia. Medicine and Law, Maribor, Slovenia, 22.-23.03. 2013.

85 Pavelić K: Presentation of the European Science Foundation (ESF) Early diagnosis of cancer in primary health care. Future role of high-throughput technologies. ESF Exploratory Workshop, Orenas Slott, Gumslow, Sweden, 6-8. 05. 2013.

86. Pavelić K.: Metastasis: a parallel disease. T2C Cancer Workshop: From Prevention to Novel Treatment approaches. Izola, Slovenia, 6.09. 2013.

87. Pavelić K: Cancer stem cells in invasion and metastasis. Matične celice in tkivni inženiring v sodobni kirurgiji. Maribor, Slovenia, 25.10. 2013.

88. Pavelić K: Biological action of clinoptilolite. Wie ein Naturmineral vor Nahrungsmittel- und Umwelt-Giften schützt. Pharmaceutical Meeting, Vienna, Austria, 12.03.2014.

89. Pavelić K: Medical application of clinoptilolite. Applicazioni della zeolite in gastroenterologia e oncologia. Medical Meeting Gli Dei, Pozzuoli, Italy, 29.04. – 1.05.2014.

90. Pavelić K: Medical application of clinoptilolite in oncology: cellular and molecular mechanisms. Hospital Cardarelli, Oncology Department, Napoli, Napoli, Italy, 30.04.2014.

91. Pavelić K: Toxicology of modified clinoptilolite and possible effect on polyneuropatic pain developed after chemotherapy of colon tumor. Novara, Italy, 17.07. 2014.

92. Pavelić K.: Is there a connection between personalized and integrative medicine. Medicine and Law, Maribor, Slovenia, 20.-21.03. 2015.

93. Pavelić K: Natural zeolite clinoptilolite: Fundamentals/R&D/ latest studies. Symposium on medicinal application of zeolites. Portshach, Worther See, Austria. 18. -19.04. 2015.

94. Pavelić K: Do we understand personalized medicine paradigm? MicroBiota Incognita.. Krk, Croatia, 26-28.09. 2016.

95. Pavelić K: Natural zeolite clinoptilolite: Fundamentals/R&D/ latest studies. III International Congress of Quantistic Psychomedicine. Milano, Italija. 19.-20.11. 2016.

96. Pavelić K.: Relationship between patient and doctor and personalized medicine. Medicine and Law, Maribor, Slovenia, 18.-19.03. 2016.

97. Pavelić K.: Safety Measures at Universities & Risks of Genetically Modified Organisms. Medicine and Law, Maribor, Slovenia, 23.-24.03. 2017.

98. Pavelić K: Personalized medicine for European citizens. Key note lecture. Symposium *Personalized medicine and molecular diagnostics*. Human Technology Styria GmbH, Graz, Austria, 15.10. 2017.

99. Pavelić K: Problems in contemporary Western medicine and need for new medicine. Medicine, law and society: Contemporary challenges and dilemmas, Maribor, Slovenia, 23.-24.03. 2018.

### **International Initiatives**

- K. Pavelic: Initiator and together with the Minister of Science, Education and Sports Dragan Primorac, the main implementer of the Republic of Croatia's membership in the European Molecular Biology Laboratory on 29.06.2006.
- K. Pavelic: Initiator of the European Science Foundation instrument - Science Policy Briefing: Human stem cell research and regenerative medicine. European Medical Research Council, European Science Foundation, 52nd plenary meeting, London, United Kingdom, 22.-23. April, 2008.
- K. Pavelic: Initiator of the European Science Foundation instrument - Forward Look: Personalized medicine for the European citizen – towards more precise medicine for the diagnosis, treatment and prevention of disease. European Medical Research Council, European Science Foundation, 55th plenary meeting, Copenhagen, Denmark, 13.-14. October, 2009.

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21. **Mirela Sedić,** Faculty of Natural Sciences, University of Zagreb,, 2007.
22. **Sanja Šale:** Department of Biotechnology, University of Rijeka, 17. 02. 2015.
23. **Anja Harej:** Molecular effects of new L-ascorbic acid derivatives on transformed and normal human cells in vitro. University of Rijeka, 30.01.2020. 232 p.