

Emilija Janevik

Personal Information

Family name: **Janevik-Ivanovska**
First name: **Emilija**
Gender: **Female**
Date of birth: **1963-02-11**
Nationality: **Republic of Macedonia**

Education

1. Months/years attended: from **September 1981** to **May 1986**

Degrees, diplomas, certificates and academic distinctions: **Pharmacist (B.Sc.)**

Main course of study: **Pharmacy**

Name, place and country: **Faculty of Pharmacy, Skopje, Republic of Macedonia**

2. Months/years attended: from **September 1993** to **February 1997**

Degrees, diplomas, certificates and academic distinctions: **Specialist of Pharmaceutical Technology**

Main course of study: **Specialization of Pharmaceutical Technology**

Name, place and country: **Faculty of Pharmacy, Skopje, Republic of Macedonia**

3. Months/years attended: from **September 1997** to **May 2000**

Degrees, diplomas, certificates and academic distinctions: **Master of Science**

Main course of study: **Master study of Biology/Biochemistry - subject: Radiolabelled bispecific antibodies and bi-valent haptens**

Name, place and country: **Faculty of Natural Sciences and Mathematics, Skopje, Republic of Macedonia**

4. Months/years attended: from **October 2000** to **June 2003**

Degrees, diplomas, certificates and academic distinctions: **Doctor of Science (PhD)**

Main course of study: **PhD study of Biology/Biochemistry - subject: Visualization of DVT using specific radiolabeled GPIIb/IIIa receptor antagonists**

Name, place and country: **Natural Sciences and Mathematics, Skopje, Republic of Macedonia**

5. Months/years attended: **from November 2000 to March 2001**

Degrees, diplomas, certificates and academic distinctions: **Certificate for Radiopharmacist**

Main course of study: **Radiopharmacy training II-III course**

Name, place and country: **EANM Radiopharmacy training - European School of Radiopharmacy, INSTN, Saclay, France**

6. Months/years attended: **from May 1991 to June 1991**

Degrees, diplomas, certificates and academic distinctions: **Certificate to work with the radioactive surces in industry and medicine**

Main course of study: **Training course for basic use of radioisotopes in industry and medicine**

Name, place and country: **Institute of Nuclear Science "Boris Kidric-VINCA", Belgrade, Serbia**

Professional stays:

- 1. 1994, Training course for handling and management of hazardous chemicals - Paris, France**
- 2. December 1993 – September 1994
Fellow of French Government - Department of Biophysics, Faculty of Medicine "Xavier Bichat", Paris, France, prof. B.Bok**
- 3. September 1994 – July 1996
Fellow of French Government - Department of Biophysics, Faculty of Medicine "St. Antoine", Paris, France, prof. G.Milaud, Dr. A. Gruaz
European Association of peptide, U339 INSERM, Paris, France, Dr. W.Rostene, Dr. A. Gruaz**
- 4. October – November 1997
IAEA felowship - Service of Nuclear Medicine, Hospital "St.Antoine", Paris, France. Prof. S.Askienazy**
- 5. January – April 2000
IAEA felowship - National Institute of Radiobiology and Radiohygiene "Fodor Jozef", Budapest, Hungary, Dr. G. Janoki**
- 6. June – September 2003
IAEA felowship - Radiopharmacy Unit in the Hospital " St.Bartholomew" and CRUC,**

London, UK, Prof. S. Mather, K.E. Britton

7. October – November 2007

IAEA fellowship - PET Center ,“ St.Orsola-Malpigi”, Bologna, Italy, prof. S. Fanti, Dr. M. Marengo

Knowledge of Languages

<u>No.</u>	<u>Language</u>	<u>Speak</u>	<u>Read</u>	<u>Write</u>
1.	English	FL	FL	FL
2.	French	FL	FL	FL
7.	Russian	LIM	LIM	LIM
8.	Italian	LIM	LIM	LIM

Publications

1. Janevic E, Tadzer IS.

Tc-99m labelling of platelets using diethyl-dithiocarbamate or 2,5-dihydroxy-benzoic acid. *Periodicum Biologorum* 1989; 91: 409-11.

2. Trajkovski R, Milenkov V, Dukovski R, Janevic E, Tadzer IS.

Obelezavanje humanih trombocita sa dirthyl-dithiocarbamate Tc-99m (DDC). *Bilten hemat transf* 1989; 17: 21-25.

3. Janevik-Ivanovska E, Gautherot E, Milhaud G, Rostene W, Barbet J, Gruaz-Guyon A.

Nouveau traceur bi-haptene concu pour immunoscintigraphie au 99mTc et la radioimmunotherapie au 186 Re ou 188 Re avec les anticorps bi-specifiques. *Colloque National Jeunes Chercheurs 12eme Rencontres Interdisciplinaires de Biochimie, Vosge* 1996; 8.

4. Janevik-Ivanovska E, Gautherot E, Hillairet de Boisferon M, Cohen M, Milhaud G, Tartar A, Rostene W, Barbet J, Gruaz-Guyon A.

Bivalent hapten-bearing peptides designed for iodine-131 pretargeted radioimmunotherapy. *Bioconjug Chem.* 1997; 8(4): 526-33.

5. Milenkov V, Dukovski R, Ilievska S, Jolovoc V, Ivanovska E, Vaskova O.

Brzi metod za procenu kvaliteta trombocitnog koncentrata. I Kongres Transfuziologa Jugoslavije sa Medjunarodnim Ucescem, Beograd. *Bilten za Transfuziologiju* 1998; 44-2: P 40.

6. Janevik-Ivanovska E, Lazarevski P, Vaskova O, Andonovski B.

Introducing computer control system in radiopharmaceutical laboratory.
The Ninth European Symposium on Radiopharmacy and Radiopharmaceuticals,
Programme and Abstracts, Lillehammer 1999;

7. Janevik-Ivanovska E, Ilic D, Vaskova O, Andonovski B, Cakalarovski K, Arsov T, Gelev S, Grozdanovski R.
Preparation and experimental evaluation of ^{99m}Tc labeling beta-2 microglobulin preliminary in vivo and in vitro studies.
The Ninth European Symposium on Radiopharmacy and Radiopharmaceuticals,
Programme and Abstracts, Lillehammer 1999;

8. Janevik-Ivanovska E, Vaskova O, Andonovski B, Kuzmanovska S, Piponski M, Bogdanova V.
Evaluacija na ^{99m}Tc HMPAO- radiofarmaceutik za vizuelizacija na mozocna perfuzija.
Vtor Kongres na Farmacijata na Republika makedonija, Bilten na Makedonskoto Farmaceutvsko Drustvo 1999; 1-2: 71.

9. Ilic D, Janevik-Ivanovska E, Cakalarovski K, Grozdanovski R, Gelev S, Andonovski B, Arsov T, Vaskova O.
^{99m}Tc Beta-2 microglobulin imaging of dialysis-related amyloidosis.
European Journal of Nuclear Medicine 2000; 27-8: OS 348.

10. Mladenovska K, Goracinova K, Zafirova K, Janevic E.
Influence of processing variables on the microencapsulation efficacy and particle size of crosslinked gelatin microspheres.
European Journal of Pharmaceutical Science 2000; 11 (Suppl.1): S-49, PO-65.

11. Mladenovska K, Goracinova K, Glavas DM, Fredro-Kumbaradzi E, Kuzmanovska S, Janevik-Ivanovska E.
Influence of process variables on in vitro degradation and drug release rate of crosslinked gelatin microspheres in the presence of trypsin.
Proceed.10th International Pharmaceutical Technology Symposium, Istambul, Development and Delivery Challenges of the Next Generation od Drugs 2000; 65-66.

12. Gruaz-Guyon A, Janevik-Ivanovska E, Raguin O, De Labriolle-Vaylet C, Barbet J.
Radiolabeled bivalent haptens for tumor immunodetection and radioimmunotherapy.
Q J Nucl Med. 2001; 45(2): 201-6.

13. Milenkov V, Ivanovska E, Dukovski R, Vaskova O. Quality control of platelet concentrates by labeling with ^{99m}Tc HMPAO.
ISBT VII European Congress, paris, transfusion clinique et biologie 2001; 8 (Suppl. 1) : 146s-P318.

14. Mladenovska K, Janevik-Ivanovska E, Glavas DM, Kumbaradzi FE, Goracinova K.
Biodistribution of BSA-loaded gelatin microspheres after peroral application to BALB/c mice ; particle size study.
13th International Symposium on Microincapsulation, Angers, Abstracts 2001 ; P102.

15.Mladenovska K, Klisarova Lj, Janevik-Ivanovska E, Goracinova K. BSA 131-I loaded gelatin microspheres : Preparation and drug release rate in the presence of collagenase.
Acta Pharm 2002 ; 52 : 91-100.

16. Mladenovska K, Janevik EI, Glavas MD, Kumbaradzi EF, Goracinova K. Biodistribution of ¹³¹I-BSA loaded gelatin microspheres after peroral application to BALB/c mice-- particle size study.
Int J Pharm. 2002 Aug 21;242(1-2):251-253.

17. Mladenovska K, Klisarova Lj, Fredro-Kumbaradzi E, Glavas-Dodov M, Janevik-Ivanovska E, Goracinova K.
Crosslinked Gelatin Microspheres Conatining BSA as a Vaccine Formulation: Biodegradation and Drug Release Control in the Presence of Trypsin. Bull Chem Technol Macedonia 2001; 20-2: 151-156.
18. Mladenovska K, Janevik I, Glavas D, Kumbaradzi F, Goracinova K.
Biodistribution studies of BSA loaded gelatin microspheres after peroral application. Int J Pharm. 2002 Aug 21;242(1-2):251-3.
19. Mladenovska K, Janevik-Ivanovska E, Glavas-Dodov M, Slaveska-raicki R, Simonoska M, Goracinova K.
BSA-loaded gelatin microspheres: Comaprative studies on biodegradation and drug release in presence of collagenase and trypsin. Macedonian Pharmaceutical Bulletin 2002; 14: 9-14.
20. Janevik-Ivanovska E, Kuzmanovska S, Vaskova O, Miceva Ristevska S.
The role of technetium d,l HMPAO in functional imaging studies preparation and clinical evaluation. 11th European Symposium on Radiopharmacy and Radiopharmaceuticals, Programme and Abstracts, Insbruck 2003;
21. Janevik-Ivanovska E, Vaskova O, Djorgoski I, Milenkov V, Andonovski B, Janoki G.
Detection of DVT in experimental animal model using radioactive label Tirofiban GPIIb/IIIa inhibitor. Journal of Labelled Compounds and radiopharmaceuticals 2003; 46: S354.
22. Naumovski J, Simova N, Janevik-Ivanovska E, Kovkarova E, Georgievska Kuzmanovska S.
Scintigraphic detection of peptic lesion with the method of radiolabelled sucralfate. Radiol Oncol 2003; 37 (1): 9-12.
23. Mladenovska K, JanevikIE, Glavas DM, Kumbaradzi E, Goracinova K.
Biodistribution of ¹³¹I BSA loaded gelatin microspheres after peroral application to BALB/c mice Particle size study. Acta Pharm 2003; 53: 187-197.
24. Ulcar I, Tosevski J, Janevik-Ivanovska E.
The low T3 syndrome in piglets with fetal growth retardation. Clinica Veterinaria 2003.
25. Mladenovska K, Raicki RS, Cruaud O, Janevik IE, Richomme P, Venier-Julienne M-C, makraduli L, Goracinova K.
Chitosan-alginate microparticles as 5-ASA carriers for colon drug delivery- II dissolution studies. 12th International Pharm Technol Symp (IPTS-2004), Istambul 2004.
26. Janevik-Ivanovska E, Djorgoski I, Andonovski B, Milenkov V, Miceva Ristevska S, Janoki GyA.
Detection of DVT in experimental animal model using radioactive label Tirofiban- GPIIb/IIIa inhibitor. Inetnational Symposium on Trends in radiopharmaceuticals (ISTR-2005), Proceedings 2005; Vol.1: 65-82.
27. Crcareva B, Miladinova D, Stojmirov M, Djorgoski I, Andonovski B, Muratovska L, Miceva Ristevska S, Janevik-Ivanovska E.
Preparation of ^{99m}Tc hlgG and its uptake in experimental induced arthritis in rats.

The Quaterly Journal of Nuclear Medicine. 2006; 50 (1): 65-66.

28. Janevik-Ivanovska E, Gjorgoski I, Andonovski B, Gruaz-Guyon A, Mladenovska K, Miladinova D, Crcareva B, Stojmirov M, Stojanovski I, Mceva Ristevska S.
The role of experimental animal studies in development and evaluation of radiopharmaceuticals and their quality control procedures.
World Journal of Nuclear Medicine 2006; 5 (1): 102.

29. Mladenovska K, Raicki RS, Janevik EI, Ristoski T, Pavlova MJ, Kavrakovski Z, Dodov MG, Goracinova K.
Colon-specific delivery of 5-aminosalicylic acid from chitosan-Ca-alginate microparticles.
Int J Pharm. 2007; 5: 342(1-2):124-36.

30. Crcareva B, Miladinova D, Janevik-Ivanovska.
Scintigraphic evaluation of experimentally induced skeletal infection and inflammation.
Acta Orthopaedica et traumatologica Macedonica 2007; 5: 51-54.

31. Janevik-Ivanovska E, Angeleska M, Stojmirov M, Andonovski B, Miceva Ristevska S.
The role of iodine -131 MIBG and technetium -99m DMSA (V) in evaluation of malignant disease.
International Conference on Clinical PET and Molecular Nuclear medicine (IPET 2007),
Book of Extended Synopses 2007; IAEA-CN-157/162p

32. Janevik-Ivanovska E, Miceva Ristevska S, Lazarevik V, Arnikov A, Petrov S.
Feasibility study for PET the right choice for establishing PET in emerging countries.
International Conference on Clinical PET and Molecular Nuclear medicine (IPET 2007),
Book of Extended Synopses 2007; IAEA-CN-157/185p

33. Janevik-Ivanovska E.
Feasibility Studies for establishing Positron emission Tomography in Skopje: Priority for health technology assesment.
The Quaterly Journal of Nuclear Medicine. 2008; 52 (1): 34.

34. Angeleska M, Crcareva B, Zdraveska-Kocovska M, janevik-Ivanovska E.
Tc 99m-MIBI inaging of myeloma malignum.
Indian Journal of Nuclear Medicine 2008; 23: 75.

35. Vaskova O., Miceva Ristevska S., PopDjorceva D., Miladinova D., Loparska S., Janevik-Ivanovska E.
Book for Practice of Pathophysiology, 2006, Boro Grafika (Book in Macedonian) - ISBN 9989-2608-0-X.

36. Vaskova O., Miceva Ristevska S., PopDjorceva D., Miladinova D., Loparska S., Janevik-Ivanovska E.
Basic Principles of Nuclear Medicine, 2008(Book in Macedonian)

37. Vaskova O., Miceva Ristevska S., PopDjorceva D., Miladinova D., Loparska S., Janevik-Ivanovska E., Majstorov V., Ugrinska A., Andonovski B., Kuzmanovska S., Bogdanovska A., Josifovska T., Muratovska L.
Nuclear Medicine in Clinical Practice, 2008, Boro Grafika (Book in Macedonian)

38. G. Anastasov, B. Crcareva, E. Janevik-Ivanovska, D. Miladinova.
Imaging of Experimental induced Skeletal Infection and Inflammation
Eur J Nucl Med Mol Imaging (2008) 35 (Suppl 2):S216 –S402

39. G. Anastasov, B. Crcareva, D. Miladinova, E. Janevik-Ivanovska
The Role of the Technologist in Experimental Nuclear Medicine

Eur J Nucl Med Mol Imaging (2008) 35 (Suppl 2):S211–S215

40. B. Crcareva¹, I. Djorgoski², M. Petrovska³, M. Zdravesvka - Kocoska¹, E. Janevik-Ivanovska¹

Animal model of skeletal infection and inflammation visualized using Tc-99m labeled human IgG

Eur J Nucl Med Mol Imaging (2009) 36 (Suppl 2):S281–S496

41. E. Janevik-Ivanovska¹, I. Djorgoski², K. Mladenovska³, B. Crcareva¹, M. Petrovska⁴, I. Uicar⁵, M. Zdravesvka - Kocoska¹;

Experimental Animal Studies in Development and Evaluation of Radiopharmaceuticals

Eur J Nucl Med Mol Imaging (2009) 36 (Suppl 2):S281–S496

42. M. Zdraveska-Kocovska, O. Vaskova, S. Kuzmanovska, V. Majstorov, E. Janevik-Ivanovska, S. Miceva Ristevska

Radiation doses to family members of patients treated with ¹³¹I

Eur J Nucl Med Mol Imaging (2009) 36 (Suppl 2):S281–S496

43. Janevik-Ivanovska Emilija, Smilkov Katarina, Boschi Alessandra, Pasquali Micol, Uccelli Licia, Duatti Adriano

A new class of Copper-62 brain imaging agents with dithiophosphinate ligands

Alasbimn Journal Year 14, Number 54, October 2011 / XXIII Congreso de ALASBIMN

44. Janevik-Ivanovska E, Pasquali, M., Boschi, A., Uccelli, L., Smilkov. K., Duatti, A
Development of a kit formulation for the high-yield preparation of a Re-188 labelled biotin conjugate for the treatment of breast cancer through the IART approach.

Alasbimn Journal Year 14, Number 54, October 2011 / XXIII Congreso de ALASBIMN

45. Emilija Janevik

Regulatory aspects of radiopharmaceuticals in EU

Conference PRESENT AND FUTURE OF CLINICAL NUCLEAR MEDICINE, 4-6 September 2011

46. Koleva Gudeva, Liljana and Mitrev, Sasa and Ivanovska Janevik, Emilija and Boev, Blazo (2012)

Implementation of National Qualification Framework for Higher Education in Republic of Macedonia. Procedia - Social and Behavioral Sciences , 2012 (46). 2556 -2560. ISSN 1877-0428

47. E. Janevik-Ivanovska, Regional Conference on Higher Education - How does Higher Education Remain Relevant in a Changing World - Dubrovnik, 20-21 Nov. 2012

48. E. Janevik-Ivanovska (2012) Introducing the Animal Models for Evaluation of New or/and already existing Radiopharmaceuticals. World Journal of Nuclear Medicine, 2012 (11). 145. - 7th International Conference on Radiopharmaceutical Therapy, Levi, Finland, Invited lecturer

Other Activities

1. Member of the Macedonian Pharmaceutical Society

2. Member of the Macedonian Medical Association

3. Member of the European Association of Nuclear Medicine

4. Member of Pharmaceutical Chamber of Macedonia

5. Member of the Macedonian Society of Physiology
6. Member and collaborator in the Ministry of University Science Italy (MIUR Ministero dell'istruzione dell'Università e della Ricerca)
11. Member of the National Commission of Radiation Protection
7. Member and Delegate in the Radiopharmacy Committee in European Association of Nuclear Medicine and Local organized of 14th Symposium of radiopharmacy and Radiopharmaceuticals Skopje, 24-27 April, 2008
8. Director of the First Regional training course Improvement of Hospital Radiopharmacy, organized by IAEA (RER6/014), Skopje, 21-27 April, 2008
9. Director responsible for Research Programmes / Innovative Biotechnologies / Predictive Diagnostics / Laboratory Medicine of National EPMA Board (The European Association for Predictive, Preventive and Personalised Medicine)
10. Coordinator for the research Commission in The National Transplant Foundation
11. Member of National Commission for the Radiation Protection safety
12. Member of the National Council for the Program of Specialties in the Medical Field
13. Member of the National Board for the validation and recognition of university's diploma in biotechnological sciences
14. Member of the Commission for promoting the best young scientist established by the President of Republic
15. Representative from the national Pharmaceutical Chamber in the Ministry Council for the Health Specialization and sup specialization

Remarks

Member of the National Commission of Radiation Protection Safety - participate on the new National Law for the Radiation Protection Safety

Most important projects:

Projects related to International Atomic Energy Agency - IAEA:

1. (technical cooperation) 1995-1997

Preparation of Radioimmunoassay kits and Radiopharmaceuticals

2. (technical cooperation) 1997-1999

Upgrading of Instrumentation

3. (technical cooperation) 1999-2000

Local Production of Radiopharmaceuticals

4. (technical cooperation) 2000-2003

Introducing of ^{99m}Tc-labelled antibodies and peptide based radiopharmaceuticals

I. Development of kit-formulated human IgG radiopharmaceutical for imaging infection and inflammation labelled with ^{99m}technetium

II. Development of ^{99m}Tc labelled techniques of anti-CEA Monoclonal Antibodies

III. Preparation, ^{99m}Tc labelling and application of (Tyr) Octreotide

5. (technical cooperation) 2003-2005

Introduction of Radio-guided Lymphatic Surgery

6. (research project) 1.30.282004-2008

"Standardisation and quality control of in-house prepared radiopharmaceuticals for nuclear oncology"

7. VirRAD project (virtual radiopharmacy) 2002-2005

Member of a panel of Radiopharmacy professionals which is providing advice to the VirRAD project on its suitability for use to the International Nuclear Medical Community. VirRAD is a project funded by the IST programme of the 5th Research and Development Framework Programme of the European Commission.

8. NATO project Science for Peace 2002-2006

Collaboration with Faculty of Pharmacy, Institute of Biopharmacy and Pharmaceutical Technology as a Member of the group for experimental studies.

Influence of biopolymer interactions on the drug delivery from chitosan-alginate colloidal carrier systems

National projects financed by Ministry of Science and Education of the Republic of Macedonia

9. Collaboration with Faculty of Pharmacy, Institute of Biopharmacy and Pharmaceutical Technology as a Member of the group for experimental studies 2000-2003

Colloidal drug delivery systems microparticles, nanoparticles, liposomes

10. Project founded by Ministry of Science and Education of the Republic of Macedonia in collaboration with Macedonian Academy of science and art 2002-2004 Biological and genetic study concerning good health

11. Bilateral project with Albania 2006-2008

Institute of Nuclear Physics

Preparation and quality control of radiopharmaceuticals for diagnosis and therapy

12. National co-ordinator for implementation of positron emission tomography in Republic of Macedonia project supported by the Government of Republic of Macedonia and have to be realised by the ministry of Health in collaboration with the International Atomic Energy Agency current 2009 2011

Current projects:

13. Co-coordinator of STREW Tempus project (STREW Tempus project: 511355-TEMPUS-1-2010-1-RS-TEMPUS-SMHES) - Structural Reform in Higher Education – 2010 - 2014 - member of Steering Committee

14. IAEA – TC Project „Establishing Nuclear Medicine to Improve Health Care of Patients Affected by Chronic Disease“ – 2012-2013

15. IAEA-CRP - "Development and preclinical evaluations of therapeutic radiopharmaceuticals based on Lu-177 and Y-90 labeled monoclonal antibodies and peptides"- 2010 – 2014

16. IAEA-TC Regional Project - “Improving clinical practice in Nuclear Medicine (part II)” – 2010-2012

Professional activities:

1. Invited lecturer to Subregional Training Course on Customs Radiation Safety, Ohrid, Macedonia, 8 - 10 October 2008

2. REGIONAL TRAINING COURSE ON CLINICAL AUDIT & QUALITY ASSURANCE IN NUCLEAR MEDICINE - October 2010

3. Mentor of Macedonian Pharmaceutical Chamber nominated for the education of pharmacists

4. Member of the auditing group IAEA for Auditing of Nuclear Medicine Departments:

- Expert in AUDIT missions for Clinical Audit and Quality assurance in Nuclear medicine – Podgorica, Montenegro, December 2010

- Expert in AUDIT missions for Clinical Audit and Quality assurance in Nuclear medicine – Vilnius, Lithuania, December 2011

5. Lecturer in Master Study of Radiopharmacy in the University of Ferrara, Italy and in the Second edition of the EANM Block 2 for Radiopharmacy in Milan, Italy

6. Invited lecturer - expert to the Regional (AFRA) Training Course on Essential of End-user Testing of Radiopharmaceuticals and Design/Upgrading of a Radiopharmacy Facility - C7-RAF-2.008-006/12 - Yaoundé, Cameroon, 9-13 July 2012

7. Local organiser - 2nd Research Coordination Meeting on “Development and preclinical evaluation of therapeutic radiopharmaceuticals based on ¹⁷⁷Lu- and ⁹⁰Y- labelled monoclonal antibodies and peptides:” Stip, Republic of Macedonia October 01-05, 2012

8. IAEA Consultant – HR/kgw/jp/NAPC-RPRT, Personal Number 136114, 15 January – 15 February 2013

Nature of Services:

-In setting up a web based accredited training program on operational radiopharmacy for Member States using online course materials and involvement of interested academic institutions and collaborating centres

-In planning updates of Radiopharmaceuticals Monographs and GMP sections of the WHO International Pharmacopoeia