

PERSONAL INFORMATION **Violeta Stoyanova-Beninska****WORK EXPERIENCE**

October 2018–Present **Chair of Committee for Orphan Medicinal Products (COMP) at EMA**
MEB (Netherlands)
COMP at European Medicines Agency

November 2017–January 2019 **Chair of Scientific and Regulatory Advice at MEB**
Medicines Evaluation Board (Netherlands)

May 2012–September 2018 **Member of Committee for Orphan Medicinal Products (COMP) at EMA**
Medicines Evaluation Board/EMA (Netherlands)

Actively contributing to the discussions at COMP, act as coordinator of applications for orphan designations and review of designation at the time of marketing authorisation; contribute to advising the Commission on the establishment and development of policies on orphan drugs for the EU; act as reference for rare disease health policy at national level and in international forums.

September 2007–December 2017 **Senior Clinical Assessor**
Medicines Evaluation Board (Netherlands)

Assessment of clinical part of dossiers of medicinal products within the pharmacotherapeutic domain of neurology, psychiatry, ophthalmology, dermatology, pain.

Key assessor and coordinator of paediatric issues within the pharmacotherapeutic group.

Member of the National Scientific Advice Working group at MEB.

Supervisor of graduate student (master degree thesis) in pharmacoepidemiology

January 2010–March 2012 **Alternate member at Scientific Advice Working Party (SAWP) at EMA**
Medicines Evaluation Board (Netherlands)

Coordination of preparation and presentation of advice opinions, involvement in scientific discussions between sponsors and the SAWP and preparation of final scientific advices for the SAWP.

January 2009–Present **Additional expert at CNS Working party at EMA**
Medicines Evaluation Board (Netherlands)

Preparation of regulatory guidelines for development of medicinal products (clinical research) in the area of CNS.

Research and publishing in the area of regulatory science with focus on CNS.

November 2010–November 2012 **Guest physician**
Division of Mood disorders, Department of Psychiatry, Amsterdam Medical Centre (AMC), University of Amsterdam (Netherlands)

Daily clinical activities of intakes, outpatient and inpatient programs for treatment of patients with psychiatric disorders referred from first and second line institutions.

September 2011–September 2015 **Guest lecturer**
University College Utrecht and University College Roosevelt, Middelburg (Netherlands)
Education of university college students

August 2000–May 2006 **Scientific researcher B**

Department of Clinical Genetics, Faculty of Medicine and Biomedical Sciences, Erasmus Medical Centre, Rotterdam (Netherlands)

Research:

Epigenetic models for silencing of the FMR1 gene and the role of the siRNA pathway(s), microarray analysis for identification of candidate genes involved in the epigenetics of the FMR1 gene and its reactivation; Genetic heterogeneity in cells with a CGG repeat expansion; search for modifying factors which prevent FMR1 methylation and correct FMRP expression in cells from patients with Fragile X syndrome.

Characterization of the cellular localization and pattern of the MTG family of proteins MTG8, MTG16, MTGR1. The functional domains of the transcriptional co-repressor MTG16a.

Teaching:

Supervisor of undergraduate students; consultant in workshops for postgraduate education of medical doctors; supervisor of PhD students

January 1995–December 1999

Senior scientist and genetic counselor

Laboratory of Molecular Pathology, University Hospital of Obstetrics and Gynaecology, Medical University (Bulgaria)

Clinical:

Genetic counselling, molecular analysis and prenatal diagnosis of patients and families with beta-thalassemia, cystic fibrosis, autosomal-recessive spinal muscular atrophy, Duchenne/Becker progressive muscular dystrophy, haemophilia B and A, phenylketonuria, inborn errors of metabolism, and other genetic disorders

Biochemical analysis of hormones in patients with endocrine disorders, cancer, infertility, and IVF

Expert in DNA testing for forensic and paternity testing purposes

Research:

Genetic counselling, DNA banking and molecular analysis of pedigrees with HSMNL, CMT, limb-girdle muscular dystrophy, and some rare genetic disorders

Mutation screening of BRCA1 and BRCA2 genes in Dutch breast cancer families

Deletion analysis in SMA patients

Analysis of eight hypervariable markers in 150 non-related Bulgarian individuals;

Teaching:

Lecturer in molecular genetics for medical students

Supervisor and tutor of under- and postgraduate students in molecular biology and medical doctors

Supervisor of PhD students

January 1992–February 1994

Research fellow

International Centre of Genetic Engineering and Biotechnology, Trieste (Italy)

Research:

Alternative splicing of the cystic fibrosis transmembrane conductance regulator (CFTR) gene and function of alternative proteins

December 1989–January 1992

Scientist and genetic counsellor

Laboratory of Molecular Pathology, University Hospital of Obstetrics and Gynaecology, Medical University (Bulgaria)

Clinical:

⊖ Genetic counselling, molecular analysis and prenatal diagnosis of patients and families with different genetic disorders.

Research:

• Genetic counselling, molecular analysis and DNA banking of families with neuromuscular disorders

⊖ Mutation detection in CF patients and genotype/phenotype correlation

☰ Molecular diagnosis of beta-thalassemia in Bulgarian patients

EDUCATION AND TRAINING

November 2006–May 2008

Physician (MD)

Erasmus Medical Centre, Rotterdam (Netherlands)

Medical doctor – registration in the Dutch Registry of medical practitioners (BIG registration)

August 1997–August 1998

Master of Public Health

Netherlands School of Public Health (NSPH), Utrecht (Netherlands)

Public health studies

January 1992–February 1994

PhD

International Centre for Genetic Engineering and Biotechnology, Trieste, and Medical Faculty, Medical Academy, Sofia, (Bulgaria)

Molecular genetics

September 1982–October 1989

MD

Medical Faculty, Medical Academy, Sofia (Bulgaria)

Medical doctor – registration in the Bulgarian Registry of medical practitioners

ADDITIONAL INFORMATION

Expertise

medicine
clinical genetics
molecular genetics
epigenetics
psychiatry
neurology
regulatory science
scientific advice
orphan diseases
orphan medicinal products

Publications

O'Connor DJ, Sheehan ME, Hofer MP, Tsigkos S, Mariz S, Fregonese L, Larsson K, Hivert V, Westermark K, Naumann-Winter F, Stoyanova-Beninska V, Barišić I, Capovilla G, Magrelli A, Sepodes B. Defining orphan conditions in the context of the European orphan regulation: challenges and evolution. *Nat Rev Drug Discov*. 2018 Sep 12. doi: 10.1038/nrd.2018.128.

Yvonne Schuller*, Marieke Biegstraaten, Carla E. M. Hollak, Heinz-Josef Klümpen, Christine C. Gispen-de Wied and Violeta Stoyanova-Beninska; Oncologic orphan drugs approved in the EU – do clinical trial data correspond with real-world effectiveness? *Orphanet Journal of Rare Diseases* (2018) 13:214 <https://doi.org/10.1186/s13023-018-0900-9>

Yvonne Schuller, Christine Gispen-de Wied, Carla E.M.Hollak, Hubertus G. M. Leufkens, Violeta Stoyanova-Beninska; Dose-Finding Studies Among Orphan Drugs Approved in the EU: A Retrospective Analysis. *The Journal of Clinical Pharmacology* 2019, 59(2) 229–244

Fregonese L, Greene L, Hofer M, Magrelli A, Naumann-Winter F, Larsson K, Sheehan M, Stoyanova-Beninska V, Tsigkos S, Westermark K, Sepodes B;

Demonstrating significant benefit of orphan medicines: analysis of 15 years of experience in Europe *Drug Discov Today*. 2017 Oct 9. pii: S1359-6446(17)30159-9

Maria E. Sheehan, Violeta Stoyanova-Beninska, Giuseppe Capovilla, Dinah Duarte, Matthias P. Hofer,

Michel Hoffmann, Armando Magrelli, Segundo Mariz, Stelios Tsigkos,

Nonclinical data supporting orphan medicinal product designations: lessons from rare neurological conditions; *Drug Discov Today*. 2017 Oct 4. pii: S1359-6446(17)30289-1.

Annemieke Aartsma-Rus, Volker Straub, Robert Hemmings, Manuel Haas, Gabriele Schlosser-Weber, Violeta Stoyanova-Beninska, Eugenio Mercuri, Francesco Muntoni, Bruno Sepodes, Elizabeth Vroom, and Pavel Balabanov; Development of Exon Skipping Therapies for Duchenne Muscular Dystrophy:

A Critical Review and a Perspective on the Outstanding Issues; *Nucleic Acid Therapeutics*: August 2017 DOI: 10.1089/nat.2017.0682

Schuller Y, Hollak C. E. M., Gispen-de Wied C.C., Stoyanova-Beninska V., Biegstraaten M. Factors Contributing to the Efficacy-Effectiveness Gap in the Case of Orphan Drugs for Metabolic Diseases; *Drugs*. 2017 Sep;77(13):1461-1472.

Andreas M. Farkas, Segundo Mariz, Violeta Stoyanova-Beninska, Patrick Celis, Spiros Vamvakas, Kristina Larsson and Bruno Sepodes; Advanced Therapy Medicinal Products for Rare Diseases: State of Play of Incentives Supporting Development in Europe; *Frontiers in Medicine*: May 2017 | Volume 4 | Article 53

Volker Straub, Pavel Balabanov, Kate Bushby, Monica Ensini, Nathalie Goemans, Annamaria De Luca, Alejandra Pereda, Robert Hemmings, Giles Campion, Edward Kaye, Virginia Arechavala-Gomez, Aurelie Goyenvalle, Erik Niks, Olav Veldhuizen, Pat Furlong, Violeta Stoyanova-Beninska, Matthew J Wood, Alex Johnson, Eugenio Mercuri, Francesco Muntoni, Bruno Sepodes, Manuel Haas, Elizabeth Vroom, Annemieke Aartsma-Rus; Stakeholder cooperation to overcome challenges in orphan medicine development: the example of Duchenne muscular dystrophy; *Lancet Neurol* 2016; 15: 882–90

Christien Gispen-de Wied and Violeta Stoyanova-Beninska. Guest editors. SPECIAL ISSUE: What regulatory science can bring for CNS drug development

European Neuropsychopharmacology (2015) 25, 967–968

Manuel Haas, Viktor Vlcek, Pavel Balabanov, Tomas Salmonson, Serge Bakchine, Greg Markey, Martina Weise, Gabriele Schlosser-Weber, Henning Brohmann, Concepcion Prieto Yerro, Macarena Rodriguez Mendizabal, Violeta Stoyanova-Beninska, Hans L. Hillege. European Medicines Agency review of ataluren for the treatment of ambulant patients aged 5 years and older with Duchenne muscular dystrophy resulting from a nonsense mutation in the dystrophin gene. *Neuromuscular Disorders* 25 (2015) 5–13

Gispen-de Wied C, Stoyanova V, Yu Y, Isaac M, de Andres-Trelles F, Pani L. The Placebo arm in clinical studies for treatment of Psychiatric Disorders: Regulatory Dilemma's *European Neuropsychopharmacology*(2012) 22, 804–811

Mattila T, Stoyanova V, Elferink A, Gispen-de Wied C, de Boer A, Wohlfarth T. Insomnia medication: Do published studies reflect the complete picture of efficacy and safety? *Eur Neuropsychopharmacol*. 2011 Jul;21(7):500-7

Violeta V. Stoyanova-Beninska, Tamar Wohlfarth, Maria Isaac, Luuk J. Kalverdijk, Henk van den Berg, Christine Gispen-de Wied. The EU paediatric regulation. Effects on paediatric psychopharmacology in Europe. *Eur Neuropsychopharmacol* 2011; 21, 565–570 (publication on invitation)

Stoyanova. V. and Hoogeveen, AT. Fragile X Syndrome: An Epigenetic Disease in The Molecular Basis of Fragile X Syndrome, Y-J. Sung and R.B. Denman, 2005, ISBN : 81-7736-257-7; 1-16 (chapter in a book - publication on invitation)

Stoyanova, V., Rossetti, S., van Unen, L., Oostra, B.A., Hoogeveen, A.T. Loss of FMR1 hypermethylation in somatic cell heterokaryons. *The FASEB Journal* 2004; Dec;18(15):1964-6

Stoyanova, V., Oostra, BA. The CGG repeat and the FMR1 gene. *Methods Mol Biol*. 2004; 277:173-184 (chapter in a book - publication on invitation)

Hoogeveen, AT., Rossetti, S., Stoyanova, V., Schonkeren, J., Fenaroli, A., Schiaffonati, L., van Unen, L., Sacchi, N. The transcriptional corepressor MTG16a contains a novel nucleolar targeting sequence deranged in t (16; 21)-positive myeloid malignancies. *Oncogene* 2002, 21, 6703-6712

Stoyanova V., Richardus J.H. Induced abortions in Bulgaria – trends during the period 1986-1996. *European Journal of Public Health*, 1999, 9:3: 223-228

Hadjiev E, Popova D, Iotzova G, Janakiev P, Markov V, Bronzova J, Stoyanova V, Yotov G, Ouscheva R, Kremensky I. Application of Molecular Analysis in the Diagnosis and Therapeutic Control of Lymphoproliferative Disorders. *Balkan J Med Genet*, 1999, vol 2 (1), 13-16

Jordanova A, Stoyanova V, Uzunova M, Litvinenko I, Kremensky I.. Deletion analysis of Bulgarian SMA families. *Hum Mutat* 1998;12(1):33-8

Jordanova A, Stoyanova V, Bochukova I, Simeonova I, Kremensky I. SMN and NAIP deletion analysis for diagnostics of Spinal Muscular Atrophy in Bulgarian Families. *Balkan J Med Genet*, 1998, 1: 13-17

Jordanova A, Stoyanova V, Uzunova M, Litvinenko I, Kremensky I. Deletion analysis in Bulgarian SMA patients and approaches for prenatal prevention. *Balkan J Med Genet*, 1998, 1: 10-12

Bronzova, J., Todorova, A., Stoyanova, V., Janakiev, P., Jankova, S., Kremensky, I., Diagnostic application of dinucleotide repeat polymorphisms along the dystrophin gene in Bulgarian DMD/BMD families. *Balkan Journal of Clinical Laboratory*, 1995, vol. 2: 3-4:13-16

Jordanova A, Stoyanova V, Uzunova M, Litvinenko I, Simeonova I, Kremensky I. Preclinical diagnosis of spinal muscular atrophy type III in a Bulgarian pedigree with a recombination. *Balkan Journal of Clinical Laboratory*, 1995, vol. 2:3-4: 8-12

Bronzova, J., Stoyanova, V., Todorova, A. First Study in Bulgaria: How do carriers of Duchenne muscular dystrophy (DMD) understand the genetic risk? *EAMDA Newsletter*, December 1995, Issue 19, 4

Stoyanova, V., Serra, C., Kremensky, I., Expression of the CFTR36 Protein in C127 Cells, *Balkan Journal of Clinical Laboratory*, 1995, vol. 4: 57-60

Melo CA, Serra C, Stoyanova V, Aguzzoli C, Faraguna D, Tamanini A, Berton G, Cabrini G, Baralle FE. Alternative splicing of a previously unidentified CFTR exon introduces an in-frame stop codon 5' of the R region. *FEBS Lett* 1993 Aug 23;329(1-2):159-62

Kalaydjieva, L., Antov, J., Bronzova, J., Vladimirova, V., Horst, J. Molecular data on cystic fibrosis in Bulgaria. *Hum Genet* 1990 (4): 412-413

Projects

Co-supervisor of PhD students:

Yvonne Schuller (PhD degree 2018)

Jorn Mulder (PhD student)

Supervisor of Master students:

Taina Mattila (Master degree 2009)

Tobias van Rossum (Master degree 2019)

Odile van Stuijvenberg (Master degree 2019)

Research Grants and Awards:

2005 National Fragile X Foundation of USA research grant

2004 FRAXA research grant, USA

2003 FRAXA research grant, USA

2001 - 2002 FXRFC research grant, Canada

1997 - 1998 MATRA fellowship, The Dutch Ministry of Foreign Affairs

1992 - 1994 UNIDO fellowship, ICGEB, Trieste, Italy<

1996 RIVM award for the best research paper -MPH programme 1997-1998

Memberships

2012 – Member of Steering Committee for National Plan Rare Diseases, The Netherlands (Klankgroep NPZZ)

2013 - Member of Steering Committee for n=1 trials and regulatory science related to rare diseases

2015 - current Member of Committee on Personalised Medicine Rare Diseases - ZonMW

2015 - current Member of European College of Neuropsychopharmacology (ECNP)

Other Relevant Information