



Curriculum Vitae

Personal information **Violeta Georgieva Tsonkova**

Work experience

February 2023-present

Assessor of biologicals, Pharmaceutical quality

Quality Assessment & Clinical Trials, Danish Medicines Agency

Main activities: Assessment of quality and approval of biologically-based drug candidates to be applied for Phase I-III clinical trials as well as market authorisation.

October 2021 - January 2023

Scientist,

Dept. of Cell Therapy Discovery, Cell Therapy Research Unit, Novo Nordisk, Denmark

Main activities: Development and optimisation of protocols for differentiation of human pluripotent stem cells (hPSC) into neuronal stem cell lines; evaluation of differentiation phase by application of necessary analytical methods followed by dataanalyses; Optimisation of cryopreservation process for differentiated stem cells; Experience with formulation; Communication with external and internal stakeholders.

September 2020 - September 2021

Post-Doctoral Researcher,

Dept. of Cell Therapy Discovery, Cell Therapy Research Unit, Novo Nordisk, Denmark

Main activities: Development and optimisation of protocols for differentiation of human pluripotent stem cells (hPSC) into neuronal stem cell lines; evaluation of differentiation phase by application of necessary analytical methods (Flowcytometry, Immuno Cyto Chemistry, scRNAseq, qPCR) followed by dataanalyses

November 2015 - August 2020

Industrial PhD-student,

Dept. of Stem Cell Discovery (former Dept. of Islet and Stem Cell Biology), Novo Nordisk, Denmark

PhD project: Use of the human beta cell line EndoC-βH1 to generate a valid and reproducible model of human beta cells under type 2 diabetic stress

Project Description

Main activities: Functional in vitro assays such as proliferation, insulin secretion, apoptosis, ER stress; molecular biology techniques such as qPCR; qualitative and quantitative protein analysis; genetic modifications of the cell line; Immunochemistry; Microscopy and usage of Digital Imaging Systems; Data Analyses; screenings for identification of novel drug target candidates.

PhD-Courses: Light and Confocal Microscopy, Basal metabolism and Molecular Mechanisms in the Metabolic Syndrome, Responsible conduct of research, Basic flowcytometry and cell sorting, Statistics

August 2010 - August 2015

Student Assistant,

Islet and Stem Cell Biology, Hagedorn Research Institute, Novo Nordisk, Denmark

Main activities: Culture and passaging of the human EndoC-βH1 pancreatic beta cell line; additionally mammalian beta cell lines MIN6 and INS1E as well as HEPG2 cell line; DNA-purification from mouse tails, genotyping by PCR.

April 2009 - August 2010

Research Technician,

Dept. of Beta-Cell Regeneration, Hagedorn Research Institute, Novo Nordisk, Denmark

Main activities: hands-on experience with analytical methods, such as: Microscopy and Imaging, Immunohistochemistry, Histology.

July 2000 – August 2004

Pharmaconomist

Exemplary Pharmacies JSC ("Obraztsovi apteki" AD) – Varna, Bulgaria

Main activities: Obtaining knowledge in pharmacokinetics and pharmacodynamics of drugs; drug indications, side effects, dosage, shelf life, storage conditions; getting familiar with most recent drugs on the market; advising patients of the Pharmacy.

Education and training

August 2013 – August 2015

M.Sc. in Biology–Biotechnology

Faculty of Science, University of Copenhagen, Denmark

Master's Thesis Project-performed at: Dept. of Islet and Stem Cell Biology, Novo Nordisk, Denmark

Master's thesis: Further characterization of the human pancreatic beta cell line EndoC- β H1

Subject: To characterise the cell line EndoC- β H1 as a model of human beta cells by focusing on gene expression, insulin secretion and proliferation. Hereby, introduction of a gene knockdown by lentiviral transduction of shRNAs in order to generate a cell line with increased insulin secretion. In attempt to find a compound with stimulatory effect on beta cell proliferation, the cell line was used for a screening of a small library of kinase inhibitors.

Relevant Master's Courses: Heterologous Expression, Experimental Biochemistry, Immunology, Advanced Biotechnology.

August 2010 – June 2013

B.Sc. in Biology – Biotechnology,

Faculty of Science, University of Copenhagen, Denmark

Bachelor's project-performed at: Dept. of Diabetes NBEs and Obesity Biology, Novo Nordisk, Denmark

Bachelor's project: Regulation of β -klotho in white adipose tissue.

Subject: To examine the regulation of β -klotho during fasting in two model systems - in vitro and in vivo. mRNA expression was studied in differentiating 3T3-L1 cells and in matured 3T3-L1 adipocytes during induced "fed-like" and "fasting-like" states in the cells.

Relevant Bachelor's courses: Cell Biology, Mammalian Biology, Biochemistry, Mammalian Genomics, Molecular Genetics, Experimental Molecular Biology, Human Physiology, Chemistry

August 2006 – January 2009

Laboratory Technician

Academy of Professional Higher Education, Roskilde, Denmark

Laboratory Trainee at: Dept. of Mammalian Cell Technology, Novo Nordisk, DK

Laboratory Trainee project: Signal peptides and isotypes and their role in antibody expression

Work tasks during trainee period: mammalian cell cultures including cell lines: HEK 293, CHO-K1, P19; transient transfection of HEK 293 with antibody encoding genes; analysis on protein/antibody expression.

Additional information

Publications

The EndoC- β H1 cell line is a valid model of human beta cells and applicable for screenings to identify novel drug target candidates (DOI: 10.1016/j.molmet.2017.12.007)

Received 31 October 2017, Revised 12 December 2017, Accepted 13 December 2017, Available online 19 December 2017

Butyrate protects pancreatic beta cells from cytokine-induced dysfunction (DOI: <https://doi.org/10.3390/ijms221910427>)

Projects

Memberships

During my PhD and Master's Thesis, I have been presenting my projects at Scientific forums and Conferences.

Other Relevant Information