## **CURRICULUM VITAE**

## Ana (Traykova) Kozhuharova

Date of birth:	September 2nd, 1977
Marital status:	Married, with 2 kids
TEL:	090-3812-1313
e-mail:	kozhuharova.ana@gmail.com
LinkedIn:	http://jp.linkedin.com/in/kozhuharova/
Address:	Mita 4-11-27-405, Minato-ku, Tokyo-to 108-0073



#### Summary:

As a researcher I have experience in two totally different fields - plant virology and adult stem cells.

Working with plant viruses I learned and mastered skills for identification and diagnostics of different virus groups using serological and molecular methods. On the side, I was part of the team tasked with the accreditation of several testing laboratories under ISO 17025. Both responsibilities helped me improve my communication and team skills.

Later in my career, I mastered growing cell cultures, stem cells differentiation and different methods for analysis. My primary research dealt with human dental pulp stem cells and their usage in regenerative medicine.

During my research I investigated various cell cultures, DNA and RNA with methods such as PCR (including real-time PCR), flow cytometry and immunocytochemistry.

#### Education:

Doctor of Philosophy (Ph.D.), Phytopathology, Plant Protection Institute (PPI), Kostinbrod, Bulgaria, 2002 -2006

Marie Curie Fellowship (QLK-CT-200-60032), Plant Molecular Biology, Scottish Crop Research Institute (SCRI), Dundee, Scotland, Jan 2005 – Dec 2005

Master of Science (M.Sc.), Molecular biology, Virology, Sofia University "Sv. Kliment Ohridski", Sofia, Bulgaria, 1996 -2001

#### Research and work experience:

Research Support, Transcriptome Technology Team (TTT), Division of Genomic Technologies (DGT), Center for Life Science Technologies (CLST) at RIKEN Yokohama Campus June 2014- Present

Working on a project for a new class of antisense long non-coding RNAs (SINEUPs) that promotes translation of partially overlapping sense coding mRNAs with no effects on RNA levels.

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## Assistant Professor, Dept. of Oral Health at Nippon Dental University (NDU), Tokyo, Japan November 2009- April 2012

Stem cell research for applications in regenerative medicine using dental tissues at Prof. Ken Yaegaki's laboratory, focusing on studying the gene expression by real-time PCR.

# Research Associate, Molecular virologist at Plant Protection Institute (PPI), Kostinbrod, Bulgaria August 2007- September 2009

# Manager of Scientific Unit at Plant Protection Institute (PPI), Kostinbrod, Bulgaria June 2006- September 2009

Managing of the new scientific unit (six main laboratories and services rooms) which was established by FP6 Project (PlantProCentre) in 2006.

#### Languages:

Bulgarian: native, English: fluent, Japanese: beginner

#### Projects:

## Stem cell research for regenerative medicine using dental tissues 2009 to April 2012

The aim of the project was to investigate the usage of stem cells from human exfoliated deciduous teeth (SHED) and adult human dental pulp stem cells (DPSCs) in the regenerative medicine.

The team showed that SHED and DPSCs acquired morphologic and functional characteristics of hepatocytes and also are capable of differentiation toward all functional endocrine and exocrine subsets of pancreatic cells.

Differentiation of DPSCs toward cardiomyocytes-like cells was also studied and the data were published as poster in 2012 at the 10th Annual Meeting of the International Society of Stem Cell Research (ISSCR), Yokohama, Japan.

#### Enhancements of Pest Risk Analysis Techniques (PRATIQUE)

#### March 2008 to March 2011

Achievements of the project was development of more efficient risk analysis techniques for pests and pathogens of phytosanitary concern.

# Validation of diagnostic methods for the detection and identification of whitefly transmitted viruses of regulatory or quarantine concern to the EU (pilot project supported by the EUPHRESCO ERA-NET) August 2008 to August 2009

The project achieved its aim to produce methods for the detection and identification of the whiteflytransmitted viruses of regulatory or quarantine concern to the EU, and to promote the use of TaqMan real-time PCR methods by the project participants through technology transfer.

#### Pepino mosaic virus -epidemiology, economic impact and pest risk analysis (PEPEIRA) February 2007 to March 2010

An important deliverable of the project was a Pest Risk Analysis (PRA) of Pepino mosaic virus (PeMoV).

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#### Center of excellence for research and knowledge transfer in plant protection (PlantProCENTRE) April 2005 to April 2008

The main project objective was to establish PPI as a Center of Excellence for research and knowledgetransfer in the field of plant protection on the Balkans.

#### **Publications:**

#### Pancreatic differentiation of human dental pulp CD117+ stem cells

Nikolay Ishkitiev, Ken Yaegaki, Ana Kozhuharova, Tomoko Tanaka, Mio Okada, Vanyo Mitev, Masaomi Fukuda, Toshio Imai Regenerative Medicine, Vol. 8, No. 5, pages 597-612, September 2013

#### Differentiation of Cardiomyocyte from Dental Pulp Stem Cells

Ana Kozhuharova, Ken Yaegaki, Nikolay Ishkitiev, Toshio Imai The International Society for Stem Cell Research (ISSCR), 10th Annual Meeting, Yokohama, Japan June 2012

# Oral Malodorous Compound Causes Oxidative Stress and p53-Mediated Programmed Cell Death in Keratinocyte Stem Cells

Bogdan Calenic, Ken Yaegaki, Ana Kozhuharova, Toshio Imai Journal of Periodontology, Vol. 81, No. 9, pages 1317-1323, September 2010

#### Dental pulp tissue may involve multipotent stem cells

Ken Yaegaki, Nikolay Ishkitiev, Ana Kozhuharova, Bogdan Calenic, Toshio Imai, Vanyo Mitev IADR -Pulp Biology and Regeneration Group: Tissue and Regeneration, Geneva, July 18, 2010

#### Hydrogen sulfide suppresses the osteoblast differentiation with inhibiting alkaline phophatase

Toshio Imai, Hisataka Ii, Ana Traykova, Ken Yaegaki, Takatoshi Murata, Takeshi Kamoda Journal of Dental Research 88, Special Issue B, 2010

#### Hepatic Differentiation of Dental Pulp Cells with Serum Free Medium

Nikolay Ishkitiev, Ken Yaegaki, Ana Traykova, Taka Nakahara, Vanyo Mitev, Hiroshi Ishikawa Journal of Dental Research 88, Special Issue B, 2010

Diagnostics of Bean common mosaic virus in common bean (*Phaseolus vulgaris* L.) seeds Ana Traykova, Dimitrinka Hristova, Angelika Ziegler RASTENIEVUDNI NAUKI, 45, 2; 128-135, 2008

#### Additional Organizations:

- Union of Scientists in Bulgaria (USB)
- Bulgarian Society of Plant Virology "Prof. Dr. Dimitar Atanasoff"

#### Volunteer Experience:

• University Rescue Squad (YACO), Disaster and Humanitarian Relief, 2002-2005

#### Interests:

Photography, swimming, scuba diving, rock climbing