

Curriculum Vitae

IVANA NOVAK, PhD

Personal data:

Address: Jablanovec, M.Gupca 19
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Date of Birth: January 16th 1978
Citizenship: Born in Zagreb, Croatia

Work experience:

Mediterranean Institute for the Study of Life, MedILS, Split, Zagreb
Postdoctoral Fellow - Laboratory of Dr. Ivan Dikić, Tumor Biology Program
EMBO Long Term Fellow
June 2008 - present

GlaxoSmithKline, Research Institute, Zagreb, Croatia
Scientist
May 2007 – June 2008

Education:

PhD in the Functional Genomics

Karolinska Institute, Stockholm, Sweden
Department of Cell and Molecular Biology
Date of Dissertation: November 24th, 2006
Thesis Supervisor: Professor Christer Höög
Thesis title: "Molecular architecture of meiotic chromosomes"
<http://diss.kib.ki.se/2006/91-7140-959-9/>
Aug 2002 – Jan 2007

The Research Training Program in Cell Biology and Genetics – PhD recruitment

Karolinska Institute, Stockholm, Sweden
Department of Cell and Molecular Biology
Completed two 10-week projects:
1. "Regulation of gene expression of coagulation factor VII by PPARs"
2. "Analysis of proteins involved in chromosome pairing and segregation"
Jan 2002 – Jun 2002

Diploma in Biology, Major: Molecular Biology

University of Zagreb, Faculty of Science, Zagreb, Croatia
Thesis title: "Cloning and heterologous expression of mouse Interleukin-12 and Interleukin-5"
(Work done in Pliva pharmaceutical company under supervision of Docent Roberto Antolović)
Sep 1996 – Dec 2001

University of Zagreb, Faculty of Philosophy, Department of Nordic Languages Zagreb, Croatia
Completed two years of the three-year program of Swedish Language and Literature (additional study)
Sep 1999 – Dec 2001

Publications:

Vladimir Kirkin, David McEwan, **Ivana Novak**, Ivan Đikić. The role of ubiquitin in autophagy.
FEBS Letters, under revision.

Caroline Adelfalk, Johannes Janschek, Ekaterina Revenkova, Bodo Liebe, Eva Göb, Manfred Alsheimer, Ricardo Benavente, Esther de Boer, **Ivana Novak**, Christer Höög, Harry Scherthan

and Rolf Jessberger. Cohesin SMC1 β protects telomeres in meiocytes. *Genes and Development*, under revision.

Ivana Novak, Hong Wang, Ekaterina Revenkova, Rolf Jessberger, Harry Scherthan and Christer Höög. Cohesin SMC1 β determines meiotic chromatin axis loop organization. *Journal of Cell Biology*, 2008, 180(1):83-90.

Geert Hamer, **Ivana Novak**, Anna Kouznetsova and Christer Höög. Disruption of pairing and synapsis of chromosomes causes stage-specific apoptosis of male meiotic cells. *Theriogenology*, 2008, 69(3):333-339.

Geert Hamer, Katarina Gell, Anna Kouznetsova, **Ivana Novak**, Ricardo Benavente and Christer Höög. Characterization of a novel meiosis specific protein within the central element of the synaptonemal complex. *Journal of Cell Science*, 2006, 119:4025-4032.

Ivana Novak, D.A. Lightfoot, Hong Wang, Annika Eriksson, Ensaf Mahdy and Christer Höög. Mouse embryonic stem cells form follicle-like ovarian structures but do not progress through meiosis, *Stem Cells*, 2006, 24(8):1931-1936.

Yael Costa, Robert Speed, Rupert Öllinger, Manfred Alsheimer, Colin A. Semple, Philippe Gautier, Klio Maratou, **Ivana Novak**, Christer Höög, Ricardo Benavente and Howard J. Cooke. Two novel proteins recruited by synaptonemal complex protein 1 (SYCP1) are at the centre of meiosis. *Journal of Cell Science*, 2005, 118:2755-2762.

Anna Kouznetsova, **Ivana Novak**, Rolf Jessberger and Christer Höög. SYCP2 and SYCP3 are required for cohesin core integrity at diplotene but not for centromere cohesion at the first meiotic division. *Journal of Cell Science*, 2005, 118:2271-2278.

Poster presentations at international conferences:

7th European Meiosis Meeting, EMBO Workshop on Chromosome Dynamics and Recombination in Meiosis. "Analysis of meiosis in *Sycp3*^{-/-}*Smc1 β* ^{-/-} double-null mice". September 2005, Madrid, Spain.

The Gordon research Conference on Meiosis. "The meiotic chromosome axes are composed of different cohesin complexes that mediate chromatin loop attachment and synapsis", June 2006, New London, New Hampshire, USA.

Other international conferences:

42nd Karolinska Institutet Nobel Conference
"Chromosome Segregation and Human Disease", June 2003.

6th European Meiosis Meeting – EMBO Workshop on Meiosis
Obertraun, Austria, Sep 2003.

International Courses:

Analytical and Quantitative Light Microscopy in Biology, Medicine and Materials Science,
May 6-14, 2004, Marine Biological Laboratory, Woods Hole, Massachusetts, USA.

Immunocytochemistry, *In situ* Hybridization and Live Cell Imaging,
Oct 20 – Nov 2, 2004, Cold Spring Harbor Laboratory, New York, USA.

Graduate Courses:

Genomics and Bioinformatics
Center for Genomics and Bioinformatics, Karolinska Institute
March 31-April 11, 2003.

Course on Laboratory Animal Science
Veterinary Resources, Karolinska Institute
September 29-October 10, 2003.

Medical Statistics,
Department of Learning, Informatics, Management and Ethics, Karolinska Institute
January 22-January 30, 2004.

Cell Biology I, The Cell Nucleus
Department of Cell and Molecular Biology, Karolinska Institute
September 14-September 27, 2004.

*Protein-DNA interactions in vivo: gene regulation, factor binding
and chromatin remodeling*
Department of Cell and Molecular Biology, Karolinska Institute
December 6-December 10, 2004.

Apoptosis: Theory and Methods
The Institute of Environmental Medicine, Karolinska Institute
October 24-October 28, 2004.

Bioinformatics for Cell Biologists
Center for Genomic and Bioinformatics, Karolinska Institute
October 31-November 4, 2005.

Writing Science and Information Literacy
Karolinska Institute
November 21-December 2, 2005.

Research experience:

Experience in a variety of molecular and cell biology techniques in the field of structural and functional genomics:

DNA and protein manipulation: PCR, RT-PCR, quantitative PCR, sequencing, sequence analysis, cloning and expression of recombinant proteins, RNAi, GST pull downs, Co-IP, Western blotting, immunoblotting, ELISA, peptide antibody design, antibody purification and characterization

Cell culture techniques: tissue cultured cells and embryonic stem cell manipulation, embryonic stem cell differentiation

Laboratory animal experiments (mouse): embryo manipulation, tissue collection

Immunofluorescent microscopy, immunocytochemistry, fluorescent *in situ* hybridization

Basic bioinformatics skills

Awards:

Karolinska Institutet Stipend, 2002. and 2003.
Croatian Ministry of Science and Technology, Zagreb, Croatia, 1999 - 2001

Fellowships:

EMBO Long Term Fellowship, July 2008-August 2010.

Professional societies:

Croatian Society of Biochemistry and Molecular Biology

Languages:

English (fluently), Croatian (native speaker), Swedish, German (working knowledge), Italian (use of)