

## QUESTIONNAIRE

*Please, fill in the Questionnaire and return it to contact person in Moldova:*

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(\*) – mandatory fields

	Details about organisation
* Organisation name	State Medical and Pharmaceutical University “Nicolae Testemitanu”, Department of Cardiology
Organisation acronym	SMPU “N.Testemitanu” (USMF)
* Organisation Activity Type (RES – Research, HE - University, SME - Small and Medium Enterprise, IND – Industry, OTH - Other)	RES – Research, HE – University
* Keywords of main research areas	Metabolic syndrome, insulinoreistence, waist circumference, BMI (body mass index), hypertension, dyslipidemia, diabetes melitus, impaired glucose tolerance
* Head of organisation (first name, family name)	Valeriu Revenco
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* Description of organisation and its research achievements for the last five years (~ 5000 signs)
<p>The scientific direction in the last 5 years was centred on the particularities and treatment of metabolic syndrome. A project with the Russian Federation was realised based on this topic and another one is currently developed in correlation with Belarus Republic.</p> <p>In base of analyse of obtained data became possibly to study some</p>

particularities of the components of metabolic syndrome: systemic hypertension, abdominal obesity, diabetes mellitus or impaired glucose tolerance and dyslipidemia. To determine the influence of increase of fat acids' concentration on cell's sensibility to insulin. To appreciate the relationship between the particularities of the clinical picture and lipid and glucide metabolism indices. To elaborate an algorithm of treatment using a selective  $\beta$ -blocking agent Nebivolol in patients with metabolic syndrome and to appreciate the influence of this treatment on lipid and glucide metabolism.

Conclusions:

1. In patients with insulin resistance the prevalence of abdominal obesity and advanced values of lipid and glucide metabolism are found.
2. Insulin resistance is more frequently associated with dyslipidemia that is characterised by decrease of HDL-Cholesterol and increase of LDL-cholesterol and triglycerides levels.
3. Insulin resistance and hyperinsulinaemia provoke the increase in free fat acids blood concentration and an elevation of their concentration in liver, respectively; this mechanism influences the increase in LDL-cholesterol (low density lipoproteins) and triglyceride blood levels.
4. The presence of this changes certainly increase the risk for development of coronary artery disease.
5. In association with hypocaloric and low salt diet the use of Nebivolol in long term therapy doesn't influence the indices of glucide metabolism, and in insulin resistance group ameliorates the state of the lipid spectrum by decrease in total cholesterol, LDL-cholesterol an triglycerides.

The results of experimental study show that the body mass increase in patients with metabolic syndrome induces the elevation of insulin's blood concentration (like a result of the insulin resistance). Insulin resistance and hyperinsulinaemia provoke an increase of blood concentration of free fat acids and elevation of their concentration in liver, respectively. This mechanism influences the increase of LDL-cholesterol and triglyceride blood levels.

An experimental stage was performed in The Institute of Experimental Medicine in Sankt-Petersburg, Biochemistry Department.

	Contact Information
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<p>International co-operation / Participation in EU RTD programmes or other bilateral / multilateral actions  INTAS, TACIS, TEMPUS, COST, EUREKA, other RTD programmes  (please specify programme/s, project title/s and year/s</p>
<p>Some members of the Department of Cardiology participated in EU RTD programm: TEMPUS TACIS JEP – 25195 – 2004 “Problem based medical education for Moldova” .</p>

	* Please, use “X” to indicate the scientific area/s of your potential project
CHEMISTRY	
SOCIAL AND HUMAN SCIENCES	
ECONOMIC SCIENCES	
ENGINEERING SCIENCE	
ENVIRONMENT	
AGRICULTURE AND FOOD	
HEALTH	“X”
MATHEMATICS	
INFORMATION SCIENCE	
PHYSICS	
NANOTECHNOLOGIES	
ENERGY	
TRANSPORT	
SPACE	

**\* Summary of potential research project envisaged hosting of European researcher for the period of between 1 and 2 years**

A specific attention is paid on metabolic syndrome in the last years. In European population approximately 40-60% has metabolic syndrome. Basic components of metabolic syndrome are: systemic hypertension, abdominal obesity, glucose tolerance alteration or diabetes mellitus and dyslipidemia. Separately, every one of this components represents an independent risk factor for coronary artery damage, all the more their association.

6 groups of antihypertensive drugs have been proposed by European Society of Cardiology, more of which negatively influence different links of lipid and glucide metabolism. This is why the antihypertensive therapy in metabolic syndrome could have some particularities. Imidazolin II receptor agonists became to be used like an antihypertensive drugs. Apart from hypotensive effect, a special property of this group of agents, is a decrease in insulin resistance and in use of moxonidine in patients with metabolic syndrome this could lead to increase in peripheral sensibility to insulin and improvement of lipid and glucide metabolism. At the moment there is lack of clarity in studies regarding moxonidine influence on different links of pathogenesis of insulin resistance.

	Please, confirm your agreement on data publication and dissemination
I agree with the publication of the data on the web-site <a href="http://www.inco-eecca.net">http://www.inco-eecca.net</a> , and dissemination among Mobility National Contact Points of the EU MS and AC (YES / NO)	YES, I am agree with the publication of the data on the web-site <a href="http://www.inco-eecca.net">http://www.inco-eecca.net</a> , and dissemination among Mobility National Contact Points of the EU MS and AC .
Date	