REQUEST FOR AUTHORISATION OF A CLINICAL TRIAL ON A MEDICINAL PRODUCT FOR HUMAN USE TO THE COMPETENT AUTHORITIES AND FOR OPINION OF THE ETHICS COMMITTEES IN THE COMMUNITY

To be filled in by the applicant

The questions in this form for the request for authorisation from the Competent Authority are also relevant for the opinion from an Ethics Committee (it represents module 1 of the form for applying to an ethics committee) and can be used as part of that application. Please indicate the relevant purpose in a box below.

Yes •

No •

REQUEST FOR AUTHORISATION TO THE COMPETENT AUTHORITY: REQUEST FOR OPINION OF THE ETHICS COMMITTEE:

A. TRIAL IDENTIFICATION

A.1 A.2	Member State in which the submission is being made: EudraCT number:	Latvia - SAM 2016-001092-74
A.3	Full title of the trial: English Pharmacodynamics of antidiabetic	drug metformin
A.3.1	Title of the trial for lay people, in easily understood, i.e. non English Research of biological mechanisms context of human organism and mi	of antidiabetic drug metformin in
A.3.2	Name or abbreviated title of the trial where available: English MIKROMET	
A.4	Sponsor's protocol code number, version and date1:	
A.4.1	Sponsor's protocol code number:	MIKROMET16001
A.4.2	Sponsor's protocol version:	3
A.4.3	Sponsor's protocol date:	2017-03-14
A.5	Additional international study identifiers (e.g. WHO, ISRCTN	² , US NCT Number ³) if available
A.5.1	ISRCTN number:	
A.5.2	US NCT number:	
A.5.3	WHO Universal Trial Number (UTN):	
A.5.4	Other Identifier:	Ne
A.6	Is this a resubmission?	No •
A 7	If 'Yes', indicate the resubmission letter ⁴ : First Submis	
A.7	Is the trial part of an agreed Paediatric Investigation Plan?	No •
A.8	EMA Decision number of Paediatric Investigation Plan:	

B. IDENTIFICATION OF THE SPONSOR RESPONSIBLE FOR THE REQUEST

B.1	SPONSOR	
B.1.1	Name of organisation:	Latvian Biomedical Research and Study centre
B.1.2	Name of the person to contact:	
B.1.2.1	Given name	Janis
B.1.2.2	Middle name	
B.1.2.3	Family name	Klovins
B.1.3	Address:	
B.1.3.1	Street address	Ratsupites Str. 1 k-1
B.1.3.2	Town/city	Riga
B.1.3.3	Post code	LV-1067
B.1.3.4	Country	Latvia
B.1.4	Telephone number:	+371 67808200
B.1.5	Fax number:	+371 67442407
B.1.6	E-mail:	BMC@biomed.lu.lv

LEGAL REPRESENTATIVE⁵ OF THE SPONSOR IN THE COMMUNITY FOR THE PURPOSE OF **B.2** THIS TRIAL (if different from the sponsor) B.2.1 Name of organisation: Name of person to contact: B.2.2 B.2.2.1 Given name B.2.2.2 Middle name B.2.2.3 Family name B.2.3 Address: B.2.3.1 Street address B.2.3.2 Town/city B.2.3.3 Post code B.2.3.4 Country Telephone number: B.2.4 Fax number: B.2.5 E-mail: B.2.6

B.3	STATUS OF THE SPONS	OR:
B.3.1	Commercial:	No •
B.3.2	Non commercial:	Yes •
B.4	Source(s) of Monetary	or Material Support for the clinical trial (repeat as necessary):

B.4.1	Name of organisation:	Latvian Biomedical Research and Study centre
B.4.2	Country:	Latvia

B.5	Contact point ⁶ designated by the sponsor for further information on the trial	
B.5.1	Name of organisation:	Genome Centre
B.5.2	Functional name of contact point (e.g. "Clinical Trial Information Desk"):	Biobank Unit
B.5.3	Address:	
B.5.3.1	Street address	Ratsupites Str. 1 k-1
B.5.3.2	Town/city	Riga
B.5.3.3	Post code	LV-1067
B.5.3.4	Country	Latvia
B.5.4	Telephone number:	+371 67473083
B.5.5	Fax number:	+371 67473083
B.5.6	E-mail: (use a functional e-mail address rather than a personal one)	gec@biomed.lu.lv

C. APPLICANT IDENTIFICATION, (please tick the appropriate box)

C.1	REQUEST FOR THE COMPET	TENT AUTHORITY
C.1.1	Sponsor	Yes •
C.1.2	Legal representative of the sp	onsor
C.1.3	Person or organisation author	ised by the sponsor to make the application
C.1.4	Complete the details of the ap	oplicant below even if they are provided elsewhere on the form:
C.1.4.1	Name of Organisation:	Latvian Biomedical Research and Study centre
C.1.4.2	Name of contact person:	
C.1.4.2.1	Given name	Janis
C.1.4.2.2	Middle name	
C.1.4.2.3	Family name	Klovins
C.1.4.3	Address:	
C.1.4.3.1	Street address	Ratsupites Str. 1 k-1
C.1.4.3.2	Town/city	Riga
C.1.4.3.3	Post code	LV-1067
C.1.4.3.4	Country	Latvia
C.1.4.4	Telephone number:	+371 67808200
C.1.4.5	Fax number:	+371 67442407
C.1.4.6	E-mail:	BMC@biomed.lu.lv
C.1.5	Request to receive a copy of (CTA data as XML:
C.1.5.1	Do you want a copy of the CTA form data saved on EudraCT as an XML Yes • file?	
C.1.5.1.1	If Yes provide the e-mail address(es) to which it should be sent (up to 5 addresses): klovins@biomed.lu.lv ineta@biomed.lu.lv	
	ilze.elbere@biomed.lu.lv	_
	monta.ustinova@biomed.lu	
C.1.5.1.2		ia password protected link(s) ⁷ ? No •
If you ansv	ver No to question C.1.5.1.2 th	e .xml file will be transmitted by less secure e-mail link(s)

D. INFORMATION ON EACH IMP

Information on each 'bulk product' before trial-specific operations (blinding, trial specific packaging and labelling) should be provided in this section for each investigational medicinal product (IMP) being tested including each comparator and each placebo, if applicable. **For placebo go directly to D.8**. If the trial is performed with several products use extra pages and give each product a sequential number in D.1.1. If the product is a combination product, information should be given for each active substance.

D.1 IMP IDENTIFICATION

Indicate which of the following is described below, then repeat as necessary for each of the numbered IMPs to be used in the trial (assign numbers from 1-n):

D.1.1	This refers to the IMP number:	PR1
D.1.2	IMP being tested	Yes •
D.1.3	IMP used as a comparator	No •

D.2 STATUS OF THE IMP

D.2.3.3

D.2.1 Has the IMP to be used in the trial a marketing authorisation? Yes • If the IMP has a marketing authorisation in the Member State concerned by this application, but the trade name and marketing authorisation holder are not fixed in the protocol, go to section D.2.2. If 'Yes', specify the product to be used in the clinical trial: D.2.1.1 Metforal 850 D.2.1.1.1 Trade name EV Product Code (where applicable) D.2.1.1.1.1 Name of the Marketing Authorisation Holder: **BERLIN-CHEMIE AG (MENARINI** D.2.1.1.2 **GROUP**) Marketing Authorisation number (if Marketing 00-1081 D.2.1.1.3 Authorisation granted by a Member State): D.2.1.1.4 Is the IMP modified in relation to its Marketing Authorisation? No • D.2.1.1.4.1 If 'Yes', please specify: D.2.1.2 The country that granted the Marketing Authorisation Latvia D.2.1.2.1 Is this the Member State concerned with this application? Yes • D.2.2 Situations where an IMP to be used in the CT has a Marketing Authorisation in the Member State concerned, but the protocol allows that any brand of the IMP with a Marketing Authorisation in that Member State be administered to the trial subjects and it is not possible to clearly identify the IMP(s) in advance of the trial start D.2.2.1 In the protocol, is treatment defined only by active No • substance? D.2.2.1.1 If 'Yes', give active substance in D.3.8 or D.3.9 D.2.2.2 In the protocol, do treatment regimens allow different No • combinations of marketed products used according to local clinical practice at some or all investigator sites in the MS? D.2.2.2.1 If 'Yes', give active substance in D.3.8 or D.3.9 The products to be administered as IMPs are defined as D.2.2.3 Yes • belonging to an ATC group⁹ D.2.2.3.1 If 'Yes', give the ATC group of the applicable authorised codes in the ATC code field (level 3 or the level that can be defined) in D.3.3 D.2.2.4 No • Other: If 'Yes', please specify: D.2.2.4.1 D.2.3 IMPD submitted: D.2.3.1 Full IMPD: No • Simplified IMPD: D.2.3.2 No •

Yes •

Summary of product characteristics (SmPC) only:

D.2.4	Has the use of the IMP been previously authorised in a clinical trial conducted by the sponsor in the Community?	No ●	
D.2.4.1	If 'Yes' specify which Member States:		
D.2.5	Has the IMP been designated in this indication as an orphan drug in the Community?	No •	
D.2.5.1	If 'Yes', give the orphan drug designation number ¹⁰ :		

D.2.6	Has the IMP been the subject of scientific advice related	ted No •
	to this clinical trial?	
D.2.6.1	If 'Yes' to D.2.6, please indicate source of advice and	provide a copy in the CTA request:
D.2.6.1.1	CHMP ¹¹ ?	No •
D.2.6.1.2	National Competent Authority?	No •

D.3 **DESCRIPTION OF THE IMP**

D.3.1	Product name where applicable ¹² :	
D.3.2	Product code where applicable ¹³ :	
D.3.3	ATC codes, if officially registered ¹⁴ :	A10BA02
D.3.4	Pharmaceutical form (use standard terms):	Film-coated tablet
D.3.4.1	Is this a specific paediatric formulation?	No •
D.3.5	Maximum duration of treatment of a subject accordir	ng to the protocol:
	7 days	
D.3.6	Dose allowed:	
D.3.6.1	For first trial only:	
	Specify per day or total	Total •
	Specify total dose (number and unit):	
	Route of administration (relevant to the first dose):	
D.3.6.2	For all trials	
	Specify per day or total	Per day ●
	Specify total dose (number and unit):	3 g gram(s)
	Route of administration (relevant to the maximum dose):	Oral use
D.3.7	Routes of administration (use standard terms):	Oral use

D.3.8 Name of each active substance (INN or proposed INN if available): **METFORMIN HYDROCHLORIDE** D.3.9 Other available name for each active substance (provide all available): 1115-70-4

- D.3.9.1 CAS15 number
- D.3.9.2 Current sponsor code
- D.3.9.3 Other descriptive name
- D.3.9.4 EV Substance code
- D.3.9.5 Full Molecular formula
- C4H12CIN5
- D.3.9.6 Chemical/biological description of the Active Substance Metformin Hydrochloride is the hydrochloride salt of the biguanide metformin with antihyperglycemic and potential antineoplastic activities. Metformin inhibits complex I (NADPH:ubiquinone oxidoreductase) of the mitochondrial respiratory chain, thereby increasing the cellular AMP to ATP ratio and leading to activation of AMP-activated protein kinase (AMPK) and regulating AMPK-mediated transcription of target genes. This eventually prevents hepatic gluconeogenesis, enhances insulin sensitivity and fatty acid oxidation and ultimately leads to a decrease in glucose levels. Metformin may exert antineoplastic effects through AMPK-mediated or AMPK-independent inhibition of mammalian target of rapamycin (mTOR), which is up-regulated in many cancer tissues. Furthermore, this agent also inhibits tumor cell migration and invasion by inhibiting matrix metalloproteinase-9 (MMP-9) expression which is mediated through the suppression of transcription activator protein-1 (AP-1) activation. D.3.10 Strength (specify all strengths to be used):

SUB03200MIG

D.3.10.1 D.3.10.2	Concentration unit: Concentration type ("exact number", "range", "more than" or "up to"):	mg milligram(s) equal
D.3.10.3	Concentration (number).	850
D.3.11	Type of IMP	
	contain an active substance:	
D.3.11.1 D.3.11.2	Of chemical origin? Of biological / biotechnological origin (other than Advanced Therapy IMP (ATIMP)?	Yes ● No ●
Is this a:		
D.3.11.3	Advanced Therapy IMP (ATIMP)?	No •
D.3.11.3.1	Somatic cell therapy medicinal product ¹⁶ ?	No •
D.3.11.3.2	Gene therapy medicinal product ¹⁷ ?	No •
D.3.11.3.3	Tissue Engineered Product ¹⁸ ?	No •
D.3.11.3.4	Combination ATIMP (i.e. one involving a medical device ¹⁹)?	No •
D.3.11.3.5	Has the Committee on Advanced Therapies issued a classification for this product?	No •
D.3.11.3.5.1	If 'Yes' please provide that classification and its refere	nce number:
D.3.11.4	Combination product that includes a device, but does not involve an Advanced Therapy?	No •
D.3.11.5	Radiopharmaceutical medicinal product?	No •
D.3.11.6	Immunological medicinal product (such as vaccine, allergen, immune serum)?	No •
D.3.11.7	Plasma derived medicinal product?	No •
D.3.11.8	Extractive medicinal product?	No •
D.3.11.9	Recombinant medicinal product?	No •
D.3.11.10	Medicinal product containing genetically modified organisms?	No •
D.3.11.10.1	Has the authorisation for contained use or release been granted?	No •
D.3.11.10.2	Is it pending?	No •
D.3.11.11	Herbal medicinal product?	No •
D.3.11.12	Homeopathic medicinal product?	No •
D.3.11.13	Another type of medicinal product?	No •
D.3.11.13.1	If 'another type of medicinal product' specify the type	e of medicinal product:
D.3.12	Mode of action (<i>free text</i> ²⁰) Metformin Hydrochloride is a hydrochloride salt and potential antineoplastic activities. Metformin mitochondrial respiratory chain, increasing the co ratio and leading to activation of AMP-activated regulating AMPK-mediated transcription of targ gluconeogenesis, enhances insulin sensitivity and leads to a decrease in glucose levels.	n inhibits complexI of the ellular AMP to ATP protein kinase(AMPK) and et genes. This prevents hepatic d fatty acid oxidation and ultimately
D.3.13 D.3.13.1	Is it an IMP to be used in a first-in-human clinical trial If 'Yes', are there risk factors identified, according to t	
D.4	SOMATIC CELL THERAPY INVESTIGATIONAL MED MODIFICATION)	DICINAL PRODUCT (NO GENETIC
D.4.1	Origin of cells	
D.4.1.1	Autologous	No •
D.4.1.2	Allogeneic	No •
D.4.1.3	Xenogeneic	No •
D.4.1.3.1	If 'Yes', specify the species of origin:	

D.4.2 Type of cells

D.4.2.1	Stem cells	No ●
D.4.2.2	Differentiated cells	No ●
D.4.2.2.1	If 'Yes', specify the type (e.g. keratinocytes	, fibroblasts, chondrocytes):
D.4.2.3 D.4.2.3.1	Others: If others, specify:	No ●

D.5.2 D.5.3 D.5.4 D.5.4.1 D.5.4.11 D.5.4.1.2	Gene(s) of interest: In vivo gene therapy: Ex vivo gene therapy: Type of gene transfer product Nucleic acid (e.g. plasmid): If 'Yes', specify if: Naked: Complexed Viral vector: If 'Yes', specify the type: adenovirus, retrovirus, AAV,:	No • No • No • No •
D.5.3 D.5.4 D.5.4.1 D.5.4.1.1 D.5.4.1.2	Ex vivo gene therapy: Type of gene transfer product Nucleic acid (e.g. plasmid): If 'Yes', specify if: Naked: Complexed Viral vector:	No • No • No • No •
D.5.4 D.5.4.1 D.5.4.1.1 D.5.4.1.2	Type of gene transfer product Nucleic acid (e.g. plasmid): If 'Yes', specify if: Naked: Complexed Viral vector:	No • No • No •
D.5.4.1 D.5.4.1.1 D.5.4.1.2	Nucleic acid (e.g. plasmid): If 'Yes', specify if: Naked: Complexed Viral vector:	No • No •
D.5.4.1.1 D.5.4.1.2	If 'Yes', specify if: Naked: Complexed Viral vector:	No • No •
D.5.4.1.1 D.5.4.1.2	Naked: Complexed Viral vector:	No •
	Viral vector:	
		No
D.5.4.2	If 'Yes', specify the type: adenovirus, retrovirus, AAV,:	No •
D.5.4.2.1		
D.5.4.3	Others	No •
D.5.4.3.1	If others, specify:	
	Genetically modified somatic cells:	No •
	the origin of the cells:	N
	Autologous:	
	Allogeneic:	No ● No ●
	Xenogeneic: If 'Yas', specify the species of origin:	NO •
D.5.5.3.1	If 'Yes', specify the species of origin:	
D.5.5.4	Specify type of cells (hematopoietic stem cells):	
D.6	TISSUE ENGINEERED PRODUCT	
	which determines that this is a Tissue Engineered Product	as opposed to a Cell Therapy product
	Origin of cells Autologous	No •

D.6.1.1	Autologous	No •	
D.6.1.2	Allogeneic	No •	
D.6.1.3	Xenogeneic	No •	
D.6.1.3.1	If 'Yes', specify the species of origin:		
D.6.2	Type of cells		
D.6.2.1	Stem cells	No •	
D.6.2.2	Differentiated cells	No •	
D.6.2.2.1	If 'Yes', specify the type of cells(e.g. ke	ratinocytes, fibroblasts, chondrocytes,):	
D.6.2.3	Others:	No •	
D.6.2.3.1	If others, specify:		

D.7	PRODUCTS CONTAINING DEVICES (i.e. MEDICAL DEVICES, SCAFFOLDS ETC.)		
D.7.1	Give a brief description of the device:		
D.7.2	What is the name of the device?		
D.7.3	Is the device implantable?	No •	
D.7.4	Does this product contain:		
D.7.4.1	A medical device?	No •	
D.7.4.1.1	Does this medical device have a CE mark?	No •	
D.7.4.1.1.1	The notified body is:		
D.7.4.2	Bio-materials?	No •	
D.7.4.3	Scaffolds?	No •	
D.7.4.4	Matrices?	No •	
D.7.4.5	Other?	No •	
D.7.4.5.1	If other, specify:		

D.8 INFORMATION ON PLACEBO (if relevant; repeat as necessary)

D.8.1	Is there a placebo:	re a placebo: No •			
D.8.2	This refers to placebo number:				
D.8.3	Pharmaceutical form:				
D.8.4	Route of administration:				
D.8.5	Which IMP is it a placebo for? Specify IMP Number(s) from D.1.1			
D.8.5.1	Composition, apart from the active substance(s):				
D.8.5.2	Is it otherwise identical to the IMP? Yes ? No ? Not Answered ?				
D.8.5.2.1	If not, specify major ingredients:				

D.9 SITE(S) WHERE THE QUALIFIED PERSON CERTIFIES BATCH RELEASE²²

This section is dedicated to **finished** IMPs, i.e. medicinal products randomised, packaged, labelled and certified for use in the clinical trial. If there is more than one site or more than one IMP is certified, use extra pages and give each IMP its number from section D.1.1 or D.8.2 In the case of multiple sites indicate the product certified by each site

D.9.1	Do not fill in section D.9.2 for an IMP that: Has a MA in the EU and Is sourced from the EU market and Is used in the trial without modification(e.g. not overencapsulated) and The packaging and labelling is carried out for local use only as per article 9.2. of the Directive 2005/28/EC (GCP Directive) If all these conditions are met tick ?and list the number(s) of each IMP including placebo from sections D.1.1 and D.8.2 to which this applies PR1
D.9.2	Who is responsible in the Community for the certification of the finished IMPs?
	This site is responsible for certification of (list the number(s) of each IMP including placebo from sections D.1.1 and D.8.2):
	please tick the appropriate box:

D.9.2.1 Manufacturer

No •

No •

D.9.2.2 Importer D.9.2.3 Name of the organisation: D.9.2.4 Address: Street Address D.9.2.4.1 Town/City D.9.2.4.2 Post Code D.9.2.4.3 Country D.9.2.4.4 D.9.2.5 Give the manufacturing authorisation number: D.9.2.5.1 If No authorisation, give the reasons:

Where the product does not have a MA in the EU, but is supplied in bulk and final packaging and labelling for local use is carried out in accordance with article 9.2 of Directive 2005/28/EC (GCP Directive) then enter the site where the product was finally certified for release by the Qualified Person for use in the clinical trial at D.9.2 above.

E. GENERAL INFORMATION ON THE TRIAL

This section should be used to provide information about the aims, scope and design of the trial. When the protocol includes a sub-study in the MS concerned section E.2.3 should be completed providing information about the sub-study. To identify it check the sub-study box in the 'Objective of the trial' question below.

E.1	MEDICAL CONDI	TION OR DISEASE UNDER INVESTIGATION
E.1.1	Specify the medica English	l condition(s) to be investigated ²³ (free text): The medical condition invertigated is Type 2 diabetes mellitus. Trial will be conducted on healthy volunteers.
E.1.1.1	Medical condition ir English	easily understood language Type 2 diabetes mellitus is a chronic condition that affects how body metabolizes sugar(glucose). Main causes are insulin resistance or not enough insulin produced to maintain a normal glucose level.
E.1.1.2 E.1.2	MedDRA version, so Version System (19.1 100274	Itritional and Metabolic Diseases [C18]ystem organ class, level, term and classification code24:Organ ClassClassification CodeTermLevel33 - Metabolism10067585Type 2 diabetes mellitusPTrition disorders
E.1.3	Is any of the condit	cions being studied a rare disease ²⁵ ? No •
E.2	OBJECTIVE OF TH	IE TRIAL
E.2.1	Main objective: English	To assess the pharmacodynamic effects of 7 days long administration of metformin on healthy subjects.
E.2.2	Secondary objectiv English	es: 1) Determination of microbiome profile in association with tolerability of metformin; 2) Distinguishing dietary effects on microbiome from those of metformin treatment; 3) To evaluate the changes of clinical biochemistry parameters.
E.2.3 E.2.3.1	Is there a sub-stud If 'Yes', give the fu	y? No • Il title, date and version of each sub-study and their related objectives:
E.3	PRINCIPAL INCL	USION CRITERIA (list the most important)
	English	 Healthy person with no known illnesses at the time of application that could possibly alter the results of the study; Body characteristic parameters (eg. weight) are within the conventional range; Mental condition allows a person to understand the research process and give a legal consent for the participation in it; Age: 18 - 64 years; European descent; Both women and men with reproductive potential correspond to the contraceptive requirements stated in the protocol; Prior to the study-related procedures, the consent of a person's participation in the clinical study is received by submitting a signed and dated informed consent document.

E.4 PRINCIPAL EXCLUSION CRITERIA (list the most important)

English	1. Allergies to any of Metforal 850mg components;
	2. Usage of any other medicament which is not compatible with
	metformin;
	3. Pregnancy or lactation;
	4. Type 1 or type 2 diabetes, pancreatogenic diabetes, impaired glucose
	tolerance (assessed by biochemical indicators in blood samples: HbA1c
	5. Polycystic ovarian syndrome;
	6. Chronic intestinal tract, oncological or autoimmune diseases;
	7. Renal failure or renal impairment (glomerular filtration rate
	anomalous by Cockcroft-Gault method);
	8. Hepatic impairment (ALT measurements anomalous) or alcoholism;
	9. Acute conditions with the potential effects on kidneys:
	a. dehydration,
	b. severe infection,
	c. shock;
	10. Acute or chronic disease which may cause tissue hypoxia:
	a. cardiac or respiratory failure,
	b. recent myocardial infarction,
	c. shock.
	11. Diarrhea during the past week;
	12. Long term previous administration of metformin;
	13. Use of the following products:
	a. antibiotics,
	b. probiotics tablets / capsules,
	c. proton pump inhibitors (eg, omeprazole (Gasec Gastrocaps, LOMAC),
	lansoprazole, pantoprazole, etc.),
	d. Immunosuppressive agents (e.g., methotrexate, etc.),
	e. Corticosteroids (e.g., cortisone, hydrocortisone, prednisolone, etc)
	during the previous two months.
	14. Intravascular administration of iodinated contrast agents intended
	· · · · · · · · · · · · · · · · · · ·

E.5	END POINT(S):	
E.5.1	Primary End Point (English	(repeat as necessary) ²⁶ Metformin induced significant alterations in the composition of gut microbiome.
E.5.1.1	Timepoint(s) of eva English	aluation of this end point 10 hours after the first metformin 850mg dose and after 7 days long metformin administration.
E.5.2	Secondary End Poir English	nt (repeat as necessary) Metformin induced alterations in DNA methylation profiles and RNA expression levels. Association between DNA methylation profiles and the severity of metformin side effects. Association between specific taxonomic groups in the gut microbiome and severity of metformin side effects. Association between specific taxonomic groups in the gut microbiome and metabolite composition in human blood and faeces.
E.5.2.1	Timepoint(s) of eva English	aluation of this end point 10 hours after the first metformin 850mg dose and after 7 days long metformin administration.

E.6	SCOPE OF TH	HE TRIAL – Tick all boxes where applicable
E.6.1	Diagnosis	No •

	E.6.2 E.6.3 E.6.4 E.6.5 E.6.6 E.6.7 E.6.8 E.6.9 E.6.10 E.6.11 E.6.12 E.6.13	Prophylaxis Therapy Safety Efficacy Pharmacokinetic Pharmacodynamic Bioequivalence Dose Response Pharmacogenetic Pharmacogenomic Pharmacoeconomic Others	No • No • Yes • No • Yes • No • No • Yes • Yes • Yes • No •
E.6.13 Others No • E.6.13.1 If others, specify:	E.6.13	Others	-

E.7	TRIAL TYPE AND PHASE ²⁷		
E.7.1 Is it:	Human pharmacology (Phase I)	Yes •	
E.7.1.1	First administration to humans	No •	
E.7.1.2	Bioequivalence study	No •	
E.7.1.3	Other:	Yes •	
E.7.1.3.1	If other, please specify:		
	English Assessment of new pharmacodynamic effects and tolerability of approved drug in healthy volunteers		
E.7.2	Therapeutic exploratory (Phase II)	No •	
E.7.3	Therapeutic confirmatory (Phase III)	No •	
E.7.4	Therapeutic use(Phase IV)	No •	

E.8	DESIGN OF THE TRIAL			
E.8.1	Controlled	No •		
	If 'Yes', specify:			
E.8.1.1	Randomised:	No •		
E.8.1.2	Open: Yes •			
E.8.1.3	Single blind: No •			
E.8.1.4	Double blind:	No •		
E.8.1.5	Parallel group:	No •		
E.8.1.6	Cross over:	No •		
E.8.1.7	Other:	No •		
E.8.1.7.1	If other specify:			
E.8.2	If controlled, specify the comparator:			
E.8.2.1	Other medicinal product(s)	No •		
E.8.2.2	Placebo	No •		
E.8.2.3	Other No •			
E.8.2.3.1	If 'Yes' to other, specify :			
E.8.2.4	Number of treatment arms in the trial 1			
E.8.3	Single site in the Member State concerned (see also section G): Yes •			
E.8.4	Multiple sites in the Member State concerned (see also section G): No \bullet			
E.8.4.1	Number of sites anticipated in Member State concerned			
E.8.5	Multiple Member States: No •			
E.8.5.1	Number of sites anticipated in the EEA:			
E.8.6	Trial involving sites outside the EEA:			
E.8.6.1	Trial being conducted both within and outside the EEA: No •			
E.8.6.2	Trial being conducted completely outside of the EEA: No •			
E.8.6.3	If E.8.6.1 or E.8.6.2 are Yes, specify the regions in which trial sites are planned:			
E.8.6.4	If E.8.6.1 or E.8.6.2 are Yes, specify the number of sites			
	anticipated outside of the EEA:			
E.8.7	Trial having an independent data monitoring committee: No •			
E.8.8	Definition of the end of trial: If it is the last	visit of the last subject, please enter "LVLS". If it is not		
	LVLS provide the definition:			
	English LVLS			

E.8.9	Initial estimate of the duration of the trial	²⁸ (years, months and days)
E.8.9.1	In the Member State concerned	3 years 0 months 0 days
E.8.9.2	In all countries concerned by the trial	years months days
E.8.10	Proposed date of start of recruitment	
E.8.10.1	In the Member State concerned	2017-03-01
E.8.10.2	In any country	
8		

F. POPULATION OF TRIAL SUBJECTS

F.1	AGE RANGE			
F.1.1	Are the trial subjects under 18?		No •	
	If 'Yes', specify the estimated numbe	r of subjects		
	planned in each age range for the wh	ole trial:		
	A	Approx. No. o	f	
		patients ²⁹		
F.1.1.1	In utero	()	No •	
F.1.1.2	Preterm newborn infants (up to gestational age < 37 weeks)	()	No ●	
F.1.1.3	Newborns (0-27 days)	()	No •	
F.1.1.4	Infants and toddlers (28 days - 23 months)	Ö	No ●	
F.1.1.5	Children (2-11 years)	()	No •	
F.1.1.6	Adolescents (12-17 years)	()	No •	
F.1.2	Adults (18-64 years)	(50)	Yes ●	
F.1.3	Elderly (>= 65 years)	()	No •	
F.2	GENDER			
F.2.1	Female		Yes •	
F.2.2	Male		Yes ●	
F.3	GROUP OF TRIAL SUBJECTS			
F.3.1	Healthy volunteers		Yes ●	
F.3.2	Patients		No •	
F.3.3	Specific vulnerable populations		Yes •	
F.3.3.1	Women of child bearing potential not	using	No •	

F.3.3.1	Women of child bearing potential not using	No •
	contraception	
F.3.3.2	Women of child bearing potential using contraception	Yes •
F.3.3.3	Pregnant women	No •
F.3.3.4	Nursing women	No •
F.3.3.5	Emergency situation	No •
F.3.3.6	Subjects incapable of giving consent personally	No •
F.3.3.6.1	If 'Yes', specify:	
F.3.3.7	Others:	No •
F.3.3.7.1	If 'Yes', specify:	

F.4	PLANNED N	UMBER OF SUBJECTS TO	BE INCLUDED:
F.4.1	In the membe	er state	50
F.4.2	For a multinat	tional trial:	
F.4.2.1	In the EEA		
F.4.2.2	In the whole of	clinical trial	
F.5			TER THE SUBJECT HAS ENDED HIS/HER
		TION IN THE TRIAL. pleas	
	English		ts are caused by the weeklong metformin n after participation in the trial there are no further

In case of any adverse effects observed in or after the week of the experiment, professional medical help is ensured until the symptoms disappear.

G. CLINICAL TRIAL SITES/INVESTIGATORS IN THE MEMBER STATE CONCERNED BY THIS REQUEST

G.1	CO-ORDINATING INVESTIGATOR (for multicentre trial) and principal investigator (single centre trial)	
G.1.1	Given name:	Valdis
G.1.2	Middle name, if applicable:	
G.1.3	Family name:	Pirags
G.1.4	Qualification (MD)	Prof., Dr.med. Endocrinologist
G.1.5	Professional address:	
G.1.5	Institution name	Latvian Biomedical Research and Study Centre
G.1.5	Institution department	Research group of Human Genetics and Molecular
		Medicine
G.1.5.1	Street address	1 Ratsupites street
G.1.5.2	Town/city	Riga
G.1.5.3	Post code	LV-1067
G.1.5.4	Country	Latvia
G.1.6	Telephone number:	+371 67069307
G.1.7	Fax number:	+371 67614168
G.1.8	E-mail:	pirags@latnet.lv

G.2	PRINCIPAL INVESTIGATORS (for multicentre trial ; where necessary, use additional forms)
G.2.1	Given name:
G.2.2	Middle name, if applicable:
G.2.3	Family name:
G.2.4	Qualification (MD)
G.2.5	Professional address:
G.2.5	Institution name
G.2.5	Institution department
G.2.5.1	Street address
G.2.5.2	Town/city
G.2.5.3	Post code
G.2.5.4	Country
G.2.6	Telephone number:
G.2.7	Fax number:
G.2.8	E-mail:

G.3 CENTRAL TECHNICAL FACILITIES TO BE USED IN THE CONDUCT OF THE TRIAL

Laboratory or other technical facility, in which the measurement or assessment of the main evaluation criteria are centralised (repeat as needed for multiple organisations).

G.3.1	Name of organisation:	Latvian Biomedical Research and Study centre
G.3.2	5	Human Genetics and Molecular Medicine
	Department	numan Genetics and Molecular Medicine
G.3.3	Name of contact person:	
G.3.3.1	Given name	Janis
G.3.3.2	Middle name	
G.3.3.3	Family name	Klovins
G.3.4	Address:	
G.3.4.1	Street address	Ratsupites Str. 1 k-1
G.3.4.2	Town/city	Riga
G.3.4.3	Post code	LV-1067
G.3.4.4	Country	Latvia
G.3.5	Telephone number:	+371 67808003
G.3.6	Fax number:	+371 67442407
G.3.7	E-mail:	klovins@biomed.lu.lv
G.3.8	Enter the details of any duties	subcontracted to this central technical facility in this trial

G.3.8.1	Routine clinical pathology testing	No •
G.3.8.2	Clinical chemistry	No •
G.3.8.3	Clinical haematology	No •
G.3.8.4	Clinical microbiology	Yes •
G.3.8.5	Histopathology	No •
G.3.8.6	Serology/ endocrinology	No •
G.3.8.7	Analytical chemistry	No •
G.3.8.8	ECG analysis/ review	No •
G.3.8.9	Medical image analysis/ review - X-ray, MRI, ultrasound, etc.	No •
G.3.8.10	Primary/ surrogate endpoint test	Yes •
G.3.8.11	Other Duties subcontracted?	Yes •
G.3.8.11.1	If 'Yes', specify the other duties	Faecal sample processing, blood derived RNA library preparation, data processing and analysis.

G.3	CENTRAL TECHNICAL FACILITIES TO BE USED IN THE CONDUCT OF THE TRIAL	
		al facility, in which the measurement or assessment of the centralised (repeat as needed for multiple organisations).
G.3.1	Name of organisation:	Latvian Biomedical Research and Study centre
G.3.2	Department	Genome Centre, Biobank unit
G.3.3	Name of contact person:	
G.3.3.1	Given name	Davids
G.3.3.2	Middle name	
G.3.3.3	Family name	Fridmanis
G.3.4	Address:	
G 3 / 1	Stroot addrocc	Patsunites Str. 1 k-1

G.3.3.1 Given name Davids	
G.3.3.2 Middle name	
G.3.3.3 Family name Fridman	nis
G.3.4 Address:	
G.3.4.1 Street address Ratsup	ites Str. 1 k-1
G.3.4.2 Town/city Riga	
G.3.4.3 Post code LV-106	7
G.3.4.4 Country Latvia	
G.3.5 Telephone number: +371 6	57473083
G.3.6 Fax number: +371 6	57473083
G.3.7 E-mail: gec@bi	omed.lu.lv
G.3.8 Enter the details of any duties subcontracted	to this central technical facility in this trial
G.3.8.1 Routine clinical pathology testing	No •
G.3.8.2 Clinical chemistry	No •
G.3.8.3 Clinical haematology	No •
G.3.8.4 Clinical microbiology	No •
G.3.8.5 Histopathology	No •
G.3.8.6 Serology/ endocrinology	No •
G.3.8.7 Analytical chemistry	No •
G.3.8.8 ECG analysis/ review	No •
G.3.8.9 Medical image analysis/ review - X-ray, MRI,	No •
ultrasound, etc.	
G.3.8.10 Primary/ surrogate endpoint test	No •
G.3.8.11 Other Duties subcontracted?	No •
G.3.8.11.1 If 'Yes', specify the other duties	DNA isolation from blood samples, massive
	parallel sequencing, storage of samples and

G.3

CENTRAL TECHNICAL FACILITIES TO BE USED IN THE CONDUCT OF THE TRIAL

Laboratory or other technical facility, in which the measurement or assessment of the main evaluation criteria are centralised (repeat as needed for multiple organisations).

G.3.1 G.3.2	Name of organisation: Department	E. Gulbis Laboratory	
G.3.3	Name of contact person:		
G.3.3.1	Given name	Ilze	

G.3.3.2	Middle name	
G.3.3.3	Family name	Lindenberga
G.3.4	Address:	
G.3.4.1	Street address	366 Brivibas gatve
G.3.4.2	Town/city	Riga
G.3.4.3	Post code	LV-1006
G.3.4.4	Country	Latvia
G.3.5	Telephone number:	+371 29399993
G.3.6	Fax number:	
G.3.7	E-mail:	Ilze.lindenberga@egl.lv
G.3.8	Enter the details of any duties subcor	ntracted to this central technical facility in this trial
G.3.8.1	Routine clinical pathology testing	No •
G.3.8.2	Clinical chemistry	Yes •
G.3.8.3	Clinical haematology	Yes •
G.3.8.4	Clinical microbiology	No •
G.3.8.5	Histopathology	No •
G.3.8.6	Serology/ endocrinology	No •
G.3.8.7	Analytical chemistry	No •
G.3.8.8	ECG analysis/ review	No •
G.3.8.9	Medical image analysis/ review - X-ra	ay, MRI, No •
	ultrasound, etc.	
G.3.8.10	Primary/ surrogate endpoint test	No •
G.3.8.11	Other Duties subcontracted?	No •
G.3.8.11.1	If 'Yes', specify the other duties	

G.3 CENTRAL TECHNICAL FACILITIES TO BE USED IN THE CONDUCT OF THE TRIAL

Laboratory or other technical facility, in which the measurement or assessment of the main evaluation criteria are centralised (repeat as needed for multiple organisations).

G.3.1	Name of organisation:	Uppsala University
G.3.2	Department	Uppsala Biomedical Centre
G.3.3	Name of contact person:	
G.3.3.1	Given name	Helgi
G.3.3.2	Middle name	-
G.3.3.3	Family name	Schioth
G.3.4	Address:	
G.3.4.1	Street address	Husargatan 3
G.3.4.2	Town/city	Uppsala
G.3.4.3	Post code	751 24
G.3.4.4	Country	Sweden
G.3.5	Telephone number:	+46 018 471 4160
G.3.6	Fax number:	
G.3.7	E-mail:	Helgi.Schioth@neuro.uu.se
G.3.8	Enter the details of any duties subco	ontracted to this central technical facility in this trial
G.3.8.1	Routine clinical pathology testing	No •
G.3.8.2	Clinical chemistry	No •
G.3.8.3	Clinical haematology	No •
G.3.8.4	Clinical microbiology	No •
G.3.8.5	Histopathology	No •
G.3.8.6	Serology/ endocrinology	No •
G.3.8.7	Analytical chemistry	No •
G.3.8.8	ECG analysis/ review	No •
G.3.8.9	Medical image analysis/ review - X-r	ay, MRI, No ●
	ultrasound, etc.	
G.3.8.10	Primary/ surrogate endpoint test	No •
G.3.8.11	Other Duties subcontracted?	Yes •
G.3.8.11.1	If 'Yes', specify the other duties	DNA methylation analysis

G.3	CENTRAL TECHNICAL FACILITI	ES TO BE USED IN THE CONDUCT OF THE TRIAL
		acility, in which the measurement or assessment of the ntralised (repeat as needed for multiple organisations).
G.3.1	Name of organisation:	Latvian Institute of Organic Synthesis
G.3.2	Department	
G.3.3	Name of contact person:	
G.3.3.1	Given name	Osvalds
G.3.3.2	Middle name	
G.3.3.3	Family name	Pugovics
G.3.4	Address:	
G.3.4.1	Street address	21 Aizkraukles street
G.3.4.2	Town/city	Riga
G.3.4.3	Post code	LV-1006
G.3.4.4	Country	Latvia
G.3.5	Telephone number:	+371 67551207
G.3.6	Fax number:	
G.3.7	E-mail:	osvalds@osi.lv
G.3.8		contracted to this central technical facility in this trial
G.3.8.1	Routine clinical pathology testing	No •
G.3.8.2	Clinical chemistry	No •
G.3.8.3	Clinical haematology	No •
G.3.8.4	Clinical microbiology	No •
G.3.8.5	Histopathology	No •
G.3.8.6	Serology/ endocrinology	No •
G.3.8.7	Analytical chemistry	Yes •
G.3.8.8	ECG analysis/ review	No •
G.3.8.9	Medical image analysis/ review - X ultrasound, etc.	-ray, MRI, No •
G.3.8.10	Primary/ surrogate endpoint test	No •
G.3.8.11	Other Duties subcontracted?	No •
G.3.8.11.1	If 'Yes', specify the other duties	

G.4 NETWORKS TO BE INVOLVED IN THE TRIAL (e.g. Paediatric Networks involved in the trial) G.4.1 Name of organisation: G.4.2 Name of contact person: G.4.2.1 Given name G.4.2.2 Middle name G.4.2.3 Family name G.4.3 Address: G.4.3.1 Street address G.4.3.2 Town/city G.4.3.3 Post code G.4.3.4 Country Telephone number: G.4.4 G.4.5 Fax number: G.4.6 E-mail: G.4.7 Activities carried out by the network:

G.5 ORGANISATIONS TO WHOM THE SPONSOR HAS TRANSFERRED TRIAL RELATED DUTIES AND FUNCTIONS

G.5.1	Has the sponsor transferred any major or all the sponsor's trial	No •
	related duties and functions to another organisation or third party?	
Repeat as n	ecessary for multiple organisations:	
G.5.1.1	Organisation name:	

G.5.1.2 Organisation department

G.5.1.3 Name of contact person :

XML File Identifier: HQI+uSuzQN2OZC3KI+ikUMHQCPk=

G.5.1.3.1 G.5.1.3.2	Given name Middle name	
G.5.1.3.3	Family name	
G.5.1.4	Address:	
G.5.1.4.1	Street address	
G.5.1.4.2	Town/city	
G.5.1.4.3	Post code	
G.5.1.4.4	Country	
G.5.1.5	Telephone number:	
G.5.1.6	Fax number:	
G.5.1.7	E-mail:	
G.5.1.8	All tasks of the sponsor	Yes ? No ? Not Answered ?
G.5.1.9	Monitoring	Yes ? No ? Not Answered ?
G.5.1.10	Regulatory (e.g. preparation of applications to CA and ethics committee)	Yes ? No ? Not Answered ?
G.5.1.11	Investigator recruitment	Yes ? No ? Not Answered ?
G.5.1.12	IVRS ³⁰ – treatment randomisation	Yes ? No ? Not Answered ?
G.5.1.13	Data management	Yes ? No ? Not Answered ?
G.5.1.14	E-data capture	Yes ? No ? Not Answered ?
G.5.1.15	SUSAR reporting	Yes ? No ? Not Answered ?
G.5.1.16	Quality assurance auditing	Yes ? No ? Not Answered ?
G.5.1.17	Statistical analysis	Yes ? No ? Not Answered ?
G.5.1.18	Medical writing	Yes ? No ? Not Answered ?
G.5.1.19	Other duties subcontracted?	Yes ? No ? Not Answered ?
G.5.1.19.1	If 'Yes' to other, please specify:	

H. COMPETENT AUTHORITY / ETHICS COMMITTEE IN THE MEMBER STATE CONCERNED BY THIS REQUEST

H.1 TYPE OF APPLICATION

If this application is addressed to the Competent Authority, please tick the Ethics Committee box and give information on the Ethics committee concerned. If this application is addressed to the Ethics Committee, please tick the Competent Authority box and give the information on the Competent Authority concerned.

H.1.1	Competent Authority	No •	
H.1.2	Ethics Committee	Yes ●	

H.2	INFORMATION ON ETHICS	COMMITTEE
H.2.1	Name:	Central Medical Ethics committee of Latvia
H.2.2	Address	
H.2.2.1	Street address	72 Brivibas street
H.2.2.2	Town/city	Riga
H.2.2.3	Post code	LV-1011
H.2.2.4	Country	Latvia
H.2.3	Date of submission:	2016-01-13
-		
H.3	OPINION	
H.3.1	To be requested	No ●
H.3.2	Pending	No ●
H.3.3	Given	Yes •
	If 'Given', specify:	
H.3.3.1	Date of opinion:	2016-01-21
H.3.3.2	Opinion favourable	Yes •
H.3.3.3	Opinion not favourable	No •
	If not favourable, give:	
H.3.3.3.1		
H.3.3.3.2	The eventual anticipated date	e of resubmission:

I. SIGNATURE OF THE APPLICANT IN THE MEMBER STATE

I.1	 I hereby confirm that /confirm on behalf of the sponsor (delete which is not applicable) that: the information provided is complete; the attached documents contain an accurate account of the information available;
	 the clinical trial will be conducted in accordance with the protocol; and the clinical trial will be conducted, and SUSARs and result-related information will be reported, in accordance with the applicable legislation.
I.2	APPLICANT OF THE REQUEST FOR THE COMPETENT AUTHORITY (as stated in section C.1):
I.2.1	Date:
I.2.2	Signature ³¹ :
I.2.3	Print name:
I.3	APPLICANT OF THE REQUEST FOR THE ETHICS COMMITTEE (as stated in section C.2):
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I.3.1	Date:
I.3.2	Signature ³² :

I.3.3 Print name:

ENDNOTES

¹ Any translation of the protocol should be assigned the same date and version as those in the original document.

² International Standard Randomised Controlled Trial Number. Sponsors may wish to use an International Standardised Random Controlled Trial Number (ISRCTN) to identify their trial in addition to the EudraCT number; for instance if their trial is part of a multinational trial with sites outside the Community. They can obtain the number and guidance from the Current Controlled Trials website http://www.controlled-trials.com/isrctn to which there is a link from the EudraCT database website http://eudract.ema.europa.eu.

When available they should provide it in Section A.6 of the application form.

³ US National Clinical Trial (NCT) Numbers required on the FDA clinical trial application form. ⁴ For a resubmission following previous withdrawal of an application or unfavourable opinion of an ethics committee, or previous withdrawal of an application or refusal of a request by the competent authority, enter a letter in the sequence, A for first resubmission, B for second, C for third et seq.

⁵ In accordance with Article 19 of Directive 2001/20/EC.

⁶ The contact point should give functional information rather than details of one "person", in order to avoid the need for update and maintenance of these contact details.

⁷ This requires a EudraLink account. (See https://eudract.ema.europa.eu/document.html for details)
 ⁸ According to national legislation.

⁹ Available from the Summary of Product Characteristics (SmPC)

¹⁰ According to the Community register on orphan medicinal products (Regulation (EC) n° 141/2000): <u>http://ec.europa.eu/enterprise/pharmaceuticals/register/index.htm</u>

¹¹ Committee for Medicinal Products for Human Use of the European Medicines Agency

¹² To be provided only when there is No trade name. This is the name routinely used by a sponsor to identify the IMP in the CT documentation (protocol, IB...).

¹³ To be provided only when there is No trade name. This is a code designated by the sponsor which represents the name routinely used by the sponsor to identify the product in the CT documentation. For example, a code may be used for combinations of drugs or drugs and devices.

¹⁴ Available from the Summary of Product Characteristics (SmPC).

¹⁵ Chemical Abstracts Service.

¹⁶ Complete also section D.4 Cell therapy as defined in Annex 1 part IV of Directive 2001/83/EC as amended.

¹⁷ Complete also section D.5 Gene Therapy as defined in Annex 1 part IV of Directive 2001/83/EC as amended.

 18 Complete also section D.6 - Tissue Engineered Product as defined in Article 2(1)(b) of

Regulation1394/2007/EC.

¹⁹ Complete also section D.7

²⁰ The mode of action should briefly describe the chemical, biochemical, immunological or biological means the IMP uses to effect its pharmaceutical action.

²¹ Guideline on strategies to identify and mitigate risks for first-in-human clinical trials with investigational medicinal products. EMEA/CHMP/SWP/28367/2007 19 July 2007

²² In accordance with paragraph 38 of Annex 13 of Volume 4 of the Rules Governing Medical Products in the European Union.

²³ In the case of healthy volunteer trials, the intended indication for the product under development should be provided.

.²⁴ Applicants are encouraged to provide the MedDRA lower level term if applicable and classification code. These can be accessed from the EMEA EudraCT website (<u>http://eudract.ema.europa.eu/</u>).

²⁵ Points to consider on the calculation and reporting of the prevalence of a condition for Orphan drug designation: COM/436/01 (<u>http://www.ema.europa.eu/htms/human/orphans/intro.htm</u>).

²⁶ The protocol will usually identify a single primary end point but there may be a co-primary end point in some cases and/or a number of secondary end points.

²⁷ The descriptions of the trial types provided are those recommended in preference to Phases. See page 5 of Community guideline CPMP/ICH/291/95. The development of a new indication after initial approval of a medicine should be considered as a new development plan.

²⁸ From the first inclusion until the last visit of the last subject.

²⁹ These numbers will be initial estimates. Applicants will not be required to update this information nor do they constitute an authorisation or restriction on the inclusion of these numbers of patients in the trial. The numbers of subjects whose inclusion is authorised are those set out in the authorised version of the protocol, or subsequent authorised amendments.

³⁰ Interactive Voice Response System: commonly used for randomisation of treatment and controlling the shipment of stock of product.

³¹ On an application to the Competent Authority only, the applicant to the Competent Authority needs to sign.

³² On an application to the Ethics Committee only, the applicant to the Ethics Committee needs to sign.