# Primary intervention with mucosal insulin for prevention of type one diabetes in infants at high genetic risk to develop diabetes

Submission date Recruitment status [X] Prospectively registered 07/02/2007 No longer recruiting [ ] Protocol [ ] Statistical analysis plan Registration date Overall study status 01/03/2007 Completed [X] Results [ ] Individual participant data Last Edited Condition category Nutritional, Metabolic, Endocrine 28/04/2015

#### Plain English summary of protocol

http://www.diabetes-point.org/nav4uk.html

#### Study website

http://www.diabetes-point.org

# Contact information

## Type(s)

Scientific

#### Contact name

Prof Ezio Bonifacio

#### Contact details

DFG-Center for Regenerative Therapies Dresden Fetscherstr. 105 Dresden Germany 01307

# Additional identifiers

# EudraCT/CTIS number

2005-001621-29

#### IRAS number

ClinicalTrials.gov number

# Secondary identifying numbers

80804002

# Study information

#### Scientific Title

Primary intervention with mucosal insulin for prevention of type one diabetes in infants at high genetic risk to develop diabetes

#### Acronym

Pre-POINT (Primary Oral INsulin Trial)

#### Study objectives

Oral application of insulin induces a protective immune response for the purpose of vaccination in infants at high risk of developing type one diabetes mellitus (T1DM).

Please note that as of 18/02/2010 this record has been extensively updated.

- 1. The intranasal arm of this trial has been removed. Italy and Switzerland have been removed from the countries of recruitment, and Canada has been added.
- 2. The overall trial start and end date were changed from 01/04/2007 and 30/09/2008 to 01/11/2008 and 30/06/2011, respectively.
- 3. The target number of participants has been reduced to 25.
- 4. The sponsor and contact information for this trial has changed.

Previous sponsor:

Institute for Diabetes Research at the Paediatric Clinic (Institut für Diabetesforschung an der Kinderklinik)

Munich Techical University (Technische Universität München)

Kölner Platz 1

Munich (München)

Germany

Previous contact:

Prof Anette-G Ziegler

On 09/07/2013 the overall trial end date was changed from 30/06/2011 to 31/12/2013.

#### Ethics approval required

Old ethics approval format

# Ethics approval(s)

- 1. Ethics committee of the Bayrische Landesärztekammer, ref: 05135
- 2. Ethikkommission der Mediz. Univ. Wien (ref: 341/2007), NHS National Research Ethics Service, ref: 10/H0106/33, COMIRB (05-1043)

# Study design

Randomised placebo-controlled double-blind/double-masked multi-centre dose-escalation primary intervention pilot study

# Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

#### Study setting(s)

Hospital

#### Study type(s)

Treatment

#### Participant information sheet

#### Health condition(s) or problem(s) studied

Type 1 diabetes-associated development of autoimmunity

#### **Interventions**

Current information as of 18/02/2010:

Active arm: insulin given orally at 2.5 mg, 7.5 mg, 22.5 mg, or 67.5 mg daily

Control arm: placebo administered orally

#### Initial information at time of registration:

Active arm A: insulin given orally at 2.5 mg, 7.5 mg, 22.5 mg, or 67.5 mg daily

Active arm B: insulin given intra-nasally at 0.28 mg, 0.83 mg, 2.5 mg, or 7.5 mg daily for ten days

and twice weekly thereafter

Control arm A: placebo administered orally

Control arm B: placebo administered intra-nasally

Children will be treated for the duration of the Pre-POINT study or until becoming Glutamic Acid Decarboxylase (GAD) or IA-2 auto-antibody positive or until diabetes onset. Average expected duration of treatment: 11 months (minimum three months; maximum 18 months corresponding to expected Pre-POINT study duration).

#### Intervention Type

Drug

#### Phase

Not Applicable

# Drug/device/biological/vaccine name(s)

Insulin

### Primary outcome measure

The development of immunity to insulin (Immunoglobulin G [IgG] or Immunoglobulin A [IgA] antibodies, or T-cell response to insulin and/or insulin peptides).

## Secondary outcome measures

- 1. Safety and bioavailability of mucosal insulin
- 2. Determination of an appropriate route and dose for insulin

## Overall study start date

01/11/2008

#### Completion date

31/12/2013

# Eligibility

#### Key inclusion criteria

Current inclusion criteria as of 09/07/2013:

- 1. Children aged 2 to 7 years who:
- 1.1. Have a multiplex first degree family history of T1DM (both parents, parent and siblings, or two siblings) and a type 1 diabetes susceptible Human Leukocyte Antigen (HLA) DR4-

DQB1\*0302 or DR4-DQB1\*0304 haplotype and none of the following HLA DR or DQB1 alleles:

- 1.1.1 DR 11
- 1.1.2 DR 12
- 1.1.3 DQB1\*0602
- 1.1.4 DR7-DQB1\*0303
- 1.1.5 DR14-DQB1\*0503
- 1.2. Have a sibling with T1DM and are identical by descent for the HLA DR3/DR4-DQ8 genotype with their diabetic sibling
- 2. Islet auto-antibody (IA-2) negative at time of recruitment

#### Previous inclusion criteria:

- 1. Children aged 2 to 7 years who:
- 1.1. Have a multiplex first degree family history of T1DM (both parents, parent and siblings, or two siblings) and have one of the following Human Leukocyte Antigen (HLA) genotypes:
- 1.1.1. DR4- DQA1\*0301-DQB1\*0302 / DR3- DQA1\*0501-DQB1\*0201
- 1.1.2. DR4- DQA1\*0301-DQB1\*0302 / DR4- DQA1\*0301-DQB1\*0302
- 1.1.3. DR4- DQA1\*0301-DQB1\*0302 / DR4- DQA1\*0301-DQB1\*0201
- 1.1.4. DR4- DQA1\*0301-DQB1\*0302 / DR4- DQA1\*0301-DQB1\*0304, or
- 1.2. Have a sibling with T1DM and are identical by descent for the HLA DR3/DR4-DQ8 genotype with their diabetic sibling
- 2. Islet auto-antibody (IA-2) negative at time of recruitment

#### Participant type(s)

Patient

#### Age group

Child

#### Lower age limit

2 Years

#### Upper age limit

7 Years

#### Sex

Both

## Target number of participants

25

#### Key exclusion criteria

- 1. Children with any kind of congenital or acquired chronic disease that potentially interfere with the study objectives
- 2. Prior or current participation in another intervention trial

#### Date of first enrolment

01/11/2008

#### Date of final enrolment

31/12/2013

# Locations

#### Countries of recruitment

Austria

Germany

Italy

Switzerland

United Kingdom

United States of America

# Study participating centre

**DFG-Center for Regenerative Therapies Dresden** 

Dresden Germany 01307

# Sponsor information

#### Organisation

Medical Faculty Carl Gustav Carus (Germany)

#### Sponsor details

Dresden University of Technology Fetscherstr. 74 Dresden Germany 01307

#### Sponsor type

University/education

#### Website

http://tu-dresden.de/die\_tu\_dresden/fakultaeten/medizinische\_fakultaet/index\_html/document\_view?cl=en

#### **ROR**

https://ror.org/04za5zm41

# Funder(s)

#### Funder type

Charity

#### **Funder Name**

Juvenile Diabetes Research Foundation (JDRF) (USA)

#### **Funder Name**

German Federal Ministry of Education and Research (Bundesministerium Für Bildung und Forschung [BMBF]) (Germany)

# **Results and Publications**

# Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

# IPD sharing plan summary

Not provided at time of registration

# **Study outputs**

Output type	<b>Details</b> results	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		21/04/2015		Yes	No
HRA research summary			28/06/2023	No	No