



The Global Platform for the
Prevention of Autoimmune Diabetes

GPPAD SCIENCE-NEWSLETTER

Issue 01/2021

DEAR READER,

Welcome to the very first issue of our GPPAD Science-Newsletter. From now on, we will keep you updated on the most important developments of GPPAD projects and research.

If you are interested in receiving this newsletter in the future, please register [HERE](#)

GPPAD is committed to [data and bio-sample sharing](#), which may also be interesting for your research.

Please send any questions or feedback to cc@gppad.org. Of course, we are excited to share our journey towards a world without type 1 diabetes with you!

Enjoy reading! Your GPPAD team

WE RESEARCH. WE DEVELOP. WE FIGHT.

FOR A WORLD WITHOUT TYPE 1 DIABETES.

GPPAD - WHO WE ARE, WHAT WE DO

The Global Platform for the Prevention of Autoimmune Diabetes (GPPAD) is a research organization that unites academic institutions and hospitals in five European countries under the lead of Helmholtz Zentrum München. We ...

- provide an international infrastructure to enable type 1 diabetes (T1D) primary prevention trials
- identify infants with an elevated genetic risk of developing T1D
- offer participation in randomized controlled trials aiming to reduce the incidence of islet autoimmunity and T1D in children

GPPAD STUDIES

Screening study for the risk of developing T1D

GPPAD conducts screening for genetic predisposition of T1D in infancy using a polygenic SNP risk score: The study is known as Freder1k (Germany, Belgium, Poland), Ingr1d (UK) and Astr1d (Sweden), respectively.

- GPPAD screening for high genetic risk of developing T1D is active in five countries in Europe (Belgium, Germany, Poland, Sweden, UK). The GPPAD investigators and collaborators have established a screening network in their respective regions with local affiliate partners such as obstetric clinics, neonatologists, primary care pediatricians, and newborn screening laboratories to perform the actual screening for T1D risk.
- Genetic risk is determined using a combination of family history and up to 51 SNPs. DNA extraction from filter paper blood spots and genetic typing are done at LGC, UK.
- High genetic risk is defined as having a risk above 10 % (25 fold higher than the general population) of developing multiple beta cell autoantibodies (stage 1 T1D) by 6 years of age.

A total of 1.15 % of screened infants were identified to have a high genetic risk. By TODAY **243,499** children have been screened with a monthly rate of **8,000** throughout the last 12 months:

Belgium (Flanders): 12,783

Germany (Bavaria, Lower Saxony, Saxony, Thuringia): 130,669

Sweden (Skane): 12,662

Poland (Warsaw): 74,442

UK: 15,403



Children with high genetic risk for T1D and their parents or guardians are asked to participate in the oral immunotherapy study POInT.

The POInT study aims to train the immune system, induce immune tolerance through daily sensitization with insulin powder, and thereby reduce the incidence of beta-cell autoantibodies and diabetes in childhood.

Sponsor:	Faculty of Medicine, Technical University Munich, Germany
Design:	CT-IMP, phase IIb, randomized controlled trial
Randomization:	1:1 (oral insulin or placebo)
Inclusion age:	4-7 months
Treatment duration:	until 3 years of age
Follow-up:	up to 7 years of age or until the end of the trial
Trial duration:	until 2025
Target:	1040 participants
Insulin dose:	7.5 mg (2 months), 22.5 mg (2 months), 67.5 mg (until end of intervention) or placebo
Primary outcome:	T1D (multiple beta cell autoantibodies or diabetes)

For more information, please refer to the [study protocol publication](#) and the overview on clinicaltrials.gov.

Currently enrolled participants: 964

Participants with currently completed intervention phase: 52

GPPAD BIOBANK AND DATA SHARING



GPPAD has established a data- and biobank repository. The GPPAD biobank contains extensive sample material (Serum, Plasma, RNA, PBMC) of the study participants.

For application to access GPPAD data, please click [here](#)

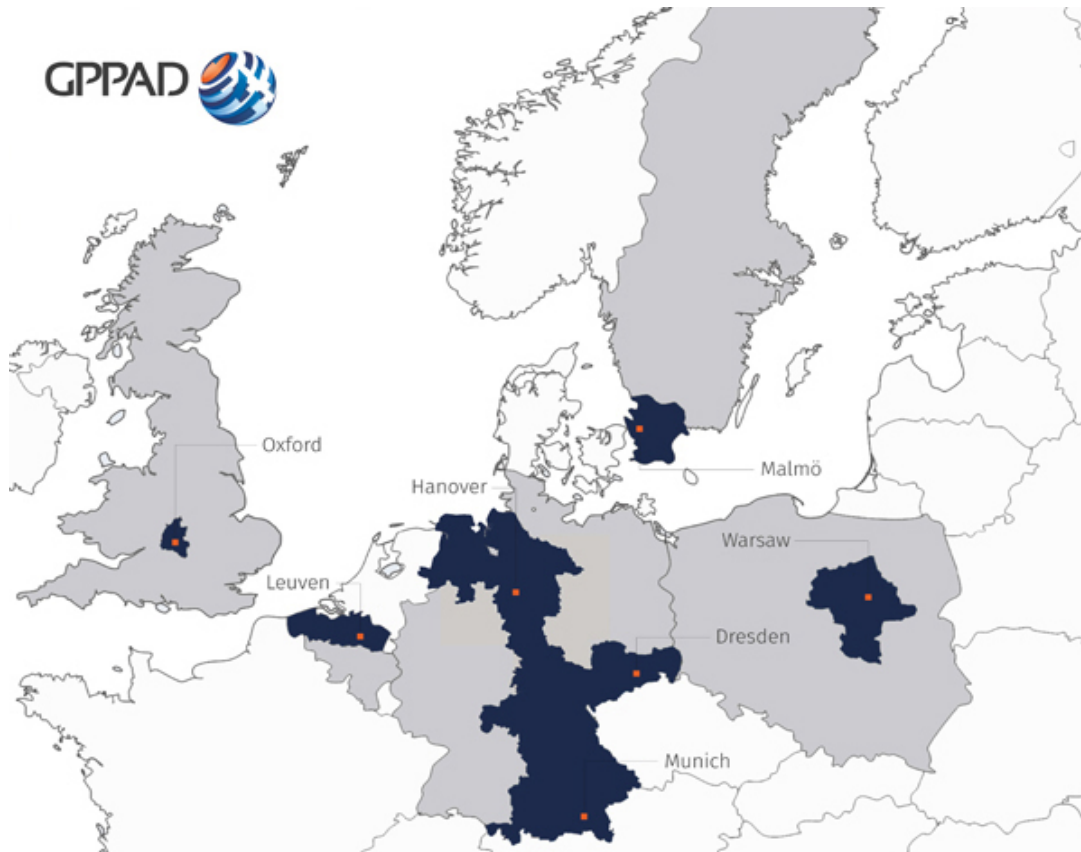
For application to access the GPPAD Biobank, please click [here](#)

PUBLICATIONS

[Winkler C, Haupt F, et al. Identification of infants with increased type 1 diabetes genetic risk for enrollment into Primary Prevention Trials-GPPAD-02 study design and first results. Pediatric Diabetes 2019;9 20\(6\):720-727. doi: 10.1111/pedi.12870](#)

[Ziegler AG, Achenbach P, Berner R et al. Oral insulin therapy for primary prevention of type 1 diabetes in infants with high genetic risk: the GPPADPOInT \(global platform for the prevention of autoimmune diabetes primary oral insulin trial\) study protocol. BMJ Open 2019;9 9:e028578. doi:10.1136/bmjopen-2018-028578](#)

PARTICIPATING INSTITUTIONS



Dresden (Saxony & Thuringia): Prof Dr Ezio Bonifacio & Prof Dr Reinhard Berner

Hanover (Lower Saxony): Prof Dr Olga Kordonouri & Prof Dr Thomas Danne

Leuven (Flanders): Prof Dr Kristina Casteels

Malmö (Skane): Prof Dr Helena Elding Larsson & Prof Dr Markus Lundgren

Munich (Bavaria): Prof Dr Anette-Gabriele Ziegler & Dr Christiane Winkler

Oxford: Prof Dr Matthew Snape & Dr Manu Vatish

Warsaw: Prof Dr Agnieszka Szypowska & Dr Mariusz Oltarzewski

The GPPAD Coordinating Centre is located at the Institute of Diabetes Research, Helmholtz Zentrum München:

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