



GHF EXPERT MEETING
**WHAT ARE THE CURRENT CHALLENGES
AND SOLUTIONS TO ACCESS TO INSULIN
AND DIABETES CARE?**

**NOVEMBER 11, 2019
9.00 - 18.00**

CAMPUS BIOTECH, GENEVA



PRESENTATION

Globally it is estimated that one person in three has no guaranteed access to essential medicines. In the poorest parts of Africa and Asia, this proportion increases to one-half. Considerable attention has been paid to the issue of access to medicines for HIV/AIDS, tuberculosis and malaria, however little attention has been paid to questions of access to essential medicines for Non communicable Diseases and diabetes.

Insulin for type 1 diabetes is a rare example where there is an absolute need for a given medicine. Although global disease burden data is lacking in 2015, it is estimated that 542,000 children aged 0-14 have type 1 diabetes and that its prevalence is increasing by 3 percent per year. While there are no estimates for the total amount of people living with type 1 diabetes estimates show that they may represent 5 percent of the total diabetes burden, of 514 million, or 20.8 million people. In contrast use of insulin in the management of type 2 diabetes is required for better control and its use is dependent on capabilities existing within different health systems and it is estimated that by 2030 close to 80 million people will need insulin with currently 50% of these people lacking access. Poor access to insulin translates into life expectancy for a child with Type 1 diabetes in sub-Saharan Africa being as low as one year. This is in contrast to recent data by Miller et al. showing that people diagnosed with Type 1 diabetes in the 1960s and 1970s in the USA have only a 4-6 year difference in life expectancy from that of the general population.

Previous work by the "Addressing the Challenge and Constraints of Insulin Sources and Supply" (ACCISS) Study, being co-led by Dr. David Beran of the Division of Tropical and Humanitarian Medicine, University of Geneva and Geneva University Hospitals, highlighted the poor availability and affordability of insulin. The factors leading to this included a variety of barriers at global and national level. Little is known about why the price of insulin has remained consistently high over the years. It is thought, however, to be the result of market domination by few multi-national companies. The lack of training of staff, the lack of diagnostic tools in health centers, the lack of information from patients, the lack of reliable distribution channels also explain the difficulties encountered.

In this perspective, the development of new tools and the recent discoveries on diabetes open the door to new strategies.

It therefore appears important to develop action research programs to define new strategies to improve diabetes management in resource-constrained settings.

Given the involvement of a researcher from the University of Geneva in a leading study on the issue of access to insulin; the existence of a strong focus on diabetes research at the University of Geneva; and the position of Geneva as the global health capital it is felt that an expert meeting will be a good tool to build a roadmap for action.

AGENDA

08:30 Registration and coffee

09:00 **Welcome and introduction of the meeting**

Prof Cem Gabay, Dean, Faculty of Medicine, University of Geneva;
Prof Valérie Schwitzgebel, Vice-President Diabetes Center of Medical Faculty, University of Geneva, Head of Pediatric Endocrine and Diabetes Unit, Department of Pediatrics, gynecology and obstetrics, Geneva University Hospitals

09:30 **Access to insulin global challenges and "homemade" insulin**

Presentations

Access to insulin: a complex issue

Dr Margaret Ewen, Health Action International, The Netherlands

Open Insulin: a solution to lowering barriers to access

Alex Kelly, BioFoundry, Australia

09:45 Overall group splits into 4-6 groups around tables with rapporteurs

10:30 Coffee Break and poster session

11:00 **What role for innovation in changing the landscape of management of Type 1 diabetes?**

5-minute pitches

Insulin-secreting alpha cells

Prof Fabrizio Thorel, Genetic Medicine and Development, University of Geneva

Open Artificial Pancreas (OpenAPS)

Dr Thomas Zueger, University of Bern

Pancreatic islet transplantation

Prof Domenico Bosco, University of Geneva

Headwind

Dr Thomas Zueger, University of Bern

Non-invasive Metabolic Monitoring with Breath Sensor

Dr Andreas Güntner, Mechanical and Process Engineering, Eidgenössische Technische Hochschule Zürich (ETHZ)

MOOCs and MOORE

Dr Giacomo Gataldi and Montserrat Castellsague Perolini, University of Geneva, Switzerland

Moderated by Prof Antoine Flahault, Institute of Global Health, University of Geneva and Dr Catharina Boheme, Chief Executive Officer, FIND

13:00 **Key note presentation – Open to public**
Opening remarks

Dr Soumya Swaminathan, Chief Scientist, World Health Organization

Precision Diabetes

Prof Emmanouil Dermitzakis, Department of Genetic Medicine and Development, Faculty of Medicine; University of Geneva; Swiss Institute of Bioinformatics (SIB); Health 2030 Genome Center

14:00 Break and poster session

14:15 **Care for Type 1 diabetes in difficult settings and for marginalised populations**

Presentations

Managing Type 1 diabetes in Tanzania: Lessons learnt and ongoing challenges

Dr Edna Majaliwa, Muhimbili National Hospital, Tanzania

Delivering Type 1 diabetes care in a humanitarian context

Dr Philippa Boule, Médecins Sans Frontières (MSF)

Type 1 diabetes care in Geneva for vulnerable populations

Dr Mirjam Dirlwanger, Geneva University Hospitals

14:45 Overall group splits into 4-6 groups around tables with rapporteurs

15:15 Coffee Break and poster session

15:45 **Rethinking delivery of care for Type 1 diabetes: systems, education and empowerment**

Presentations

Education and empowerment for people with diabetes

Dr Valla Tantayotai, Foundation for the Development of Diabetes Care, Thailand

Implementation of innovation in daily management of type 1 diabetes

Dr Philippe Klee, Geneva University Hospitals

Moderated by Prof Alain Golay, Geneva University Hospitals

16:15 **What is missing for the management of Type 1 diabetes in 2019 and a roadmap for the future**

Panel discussion – Based on discussions from the day the discussants will give their feedback

Stéphane Besançon, Santé Diabète, Mali;
Prof Antoine Geissbuhler, University of Geneva, Geneva University Hospitals;
Molly Lepeska, Health Action International, The Netherlands;

Dr Gojka Roglic, World Health Organization (WHO);

Prof Valérie Schwitzgebel, University of Geneva, Geneva University Hospitals;
Aigerim Zhaparova, Diabetes Advocate with Type 1 diabetes, Kyrgyzstan

Moderated by Neil Bennet, The Lancet Diabetes & Endocrinology

18:00 **Concluding remarks**

Prof Antoine Geissbuhler, Vice-Rector University of Geneva; Director, eHealth & Innovation at Geneva University Hospitals; Co-president of the Geneva Health Forum

Contact

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Organized by



Diabetes Center
of Medical Faculty

The study of diabetes has been a strong research and clinical focus of Faculty of Medicine at the University of Geneva for more than three decades. The Diabetes Center stresses the importance of a strong network of specialists, with the aim of complementing areas of expertise, of promoting discoveries and of defining innovative preventive and therapeutic strategies against diabetes. The Diabetes Center is interdisciplinary as its initial members are affiliated to various Departments of the Faculty of Medicine. It also collaborates with the University Hospitals of Geneva and with Faculty of Science.