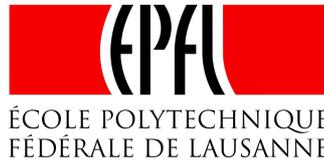




Hôpitaux
Universitaires
Genève

Rue Gabrielle-Perret-Gentil 4
CH – 1211 Genève 14



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE



UNIVERSITÉ
DE GENÈVE

PRESS RELEASE

Embargo 10 May 2017, 5 pm CET

Geneva, 10 May 2017

Switzerland's first genome center opens

In recognition of the growing role played by genome expertise in the medical realm, several institutions in the Lake Geneva region have pooled their resources to create Switzerland's first ever genome center. It is located on Campus Biotech in Geneva and aims to make gene sequencing – i.e., decoding and analyzing DNA – more widely available and promote precision medicine, which is the cornerstone of personalized health care.

Switzerland's first high-throughput DNA sequencing platform, which could well become one of Europe's largest, has opened its doors on Campus Biotech in Geneva. It is a key component of the effort to promote personalized health care and precision medicine across Switzerland and was founded by the Federal Institute of Technology in Lausanne (EPFL), the University of Geneva (UNIGE) and Geneva University Hospitals (HUG). The idea for the center came out of *Health 2030*, an initiative launched by EPFL, the University of Lausanne, UNIGE, HUG, Lausanne University Hospital (CHUV), the University of Bern and Bern University Hospital.

The ever-expanding role of genetics in medicine will lead to exponential growth in demand for gene decoding and analysis in the coming years. One of the center's initial missions will be to absorb demand from the CHUV, HUG and Bern University Hospital, with the long-term goal being to meet the needs of all Swiss hospitals and other potential partners.

"Health care is on the cusp of a revolution thanks to the explosion of new technologies in the life sciences, engineering, IT and communications," said Didier Trono, EPFL professor and co-director of *Health 2030*. "Soon it will be unthinkable to begin treating someone for cancer without having first tested the person for gene mutations. The same is true for diabetes and obesity, where DNA sequencing of the intestinal microbiota will likely play a role in devising treatments. Systematic genome sequencing will also help identify people likely to react abnormally to certain drugs and could be used to screen for genetic anomalies with preventable negative consequences, like familial hypercholesterolemia."

High performance sequencers

The new genome center is equipped with cutting-edge high-throughput sequencers, giving it analytical capacity that is unparalleled in Switzerland. Starting this summer, it will be able to decode 60 to 80 complete genomes in less than a week. Further down the line, the aim is for the center to coordinate genome sequencing across the entire country.

Numerous objectives



Hôpitaux
Universitaires
Genève



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE



UNIVERSITÉ
DE GENÈVE

Rue Gabrielle-Perret-Gentil 4
CH – 1211 Genève 14

“That doesn’t mean that medical researchers will stop sequencing panels of specific genes,” said Denis Hochstrasser, head of the Department of Genetic and Laboratory Medicine at HUG, vice rector of UNIGE and co-director of *Health 2030*. “The center will handle very large volumes and analyze entire genomes. It’s worth remembering that when we talk about analyzing DNA and RNA – the copy of the gene used by the cell to make a protein – we are talking about analyzing hereditary DNA and RNA but also the DNA and RNA from cancer tissue, for example, as well as genetically analyzing microbiota, which are the microorganisms we carry inside us.”

Gene analysis, which will one day be a routine procedure for many people treated at the hospital, requires special expertise. “It involves developing data analysis methods, running translational research projects and training researchers and clinicians in these new fields,” said Manolis Dermitzakis, co-director of the genome center and genetics professor at the UNIGE Medical School. “A clinical board, made up of representatives of each Swiss university hospital, will ensure the methods and equipment meet exacting standards.”

Ethical considerations have not been overlooked, according to Jacques Fellay, professor at EPFL and the CHUV and co-director of the genome center: “We also want to ensure that every step on the path towards more precise medicine involving individual genome decoding will benefit patients, comply with the law and be part of an ongoing dialogue with society.”

The center could eventually employ up to 40 people depending on its volume of work. It will also coordinate the efforts of hundreds of clinicians and researchers in Switzerland in order to further research and clinical practice in the area of genomics. The center was designed to serve as a national genomics hub and aims to become a European leader in this field in the near future.

Health 2030

Health 2030 is an initiative designed to promote research, training and services in the field of digital and personalized health in western Switzerland.

In keeping with the project’s nationwide approach, partners in the German-speaking part of the country will focus their efforts on proteomics and metabolomics, which refer to the molecular study of proteins and metabolites. “Since the Lake Geneva region has globally recognized expertise in genomics, this division of labor was an obvious one,” said Professor Trono.

About the Fondation Campus Biotech Genève

The Fondation Campus Biotech Genève (FCBG), a non-profit organisation, was created on 5th December 2013 by EPFL, UNIGE and the Canton of Geneva to manage the academic, clinical and entrepreneurial entities in Campus Biotech, to host and support the research groups, to provide financing, and to operate shared support platforms.

FCBG manages the Sécheron site, hosts and supports research groups, provides financing and operates the shared support platforms.



Hôpitaux
Universitaires
Genève

Rue Gabrielle-Perret-Gentil 4
CH – 1211 Genève 14



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE



UNIVERSITÉ
DE GENÈVE

For more information

Denis Hochstrasser, HUG / Unige, Health 2030 co-director
denis.hochstrasser@unige.ch, +41 79 553 45 95

Didier Trono, EPFL, Health 2030 co-director
didier.trono@epfl.ch, +41 79 379 55 03

Geneva University Hospitals, Press Service and Public Relations
Nicolas de Saussure +41 22 372 60 06 / +41 79 553 60 07

University of Geneva, Communications Department
Marco Cattaneo, +41 22 379 77 96 / +41 79 666 83 85

EPFL, Media and Communications Office
Florence Renggli, +41 21 693 19 62 / +41 79 417 38 27