



GeT Strategy & News

Denis Milan & Cécile Donnadiou

Marie-Ange Teste, Jean-José Maoret, Yannick Lippi, Emeline Lhuillier

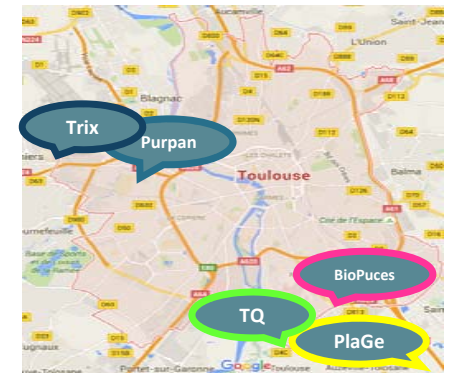
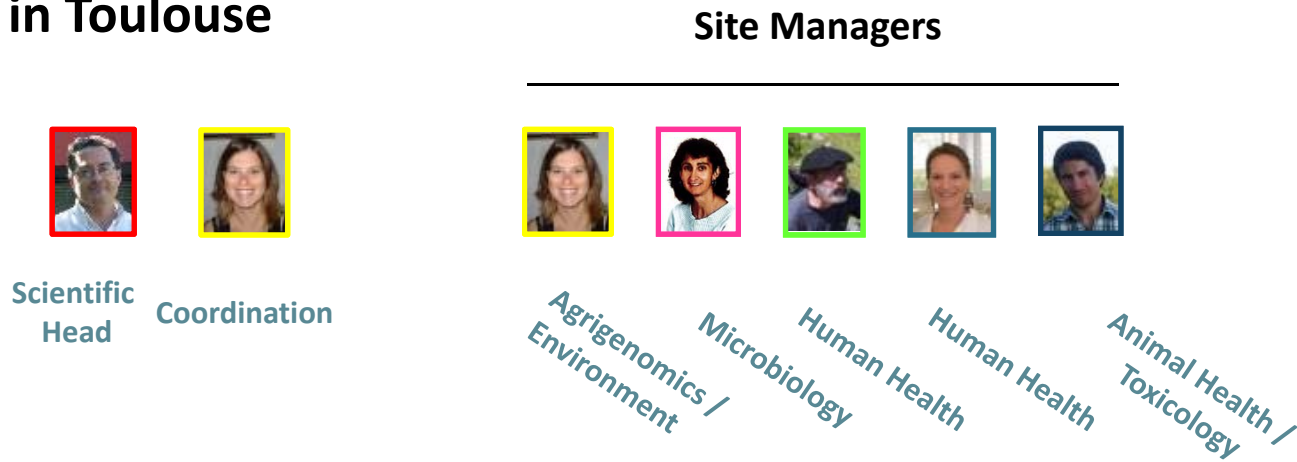


<http://get.genotoul.fr>
get@genotoul.fr
 @get_genotoul

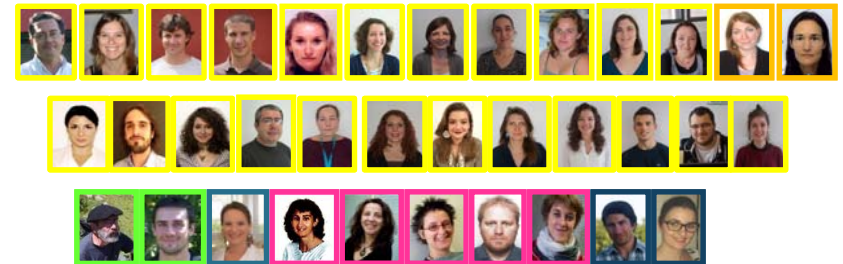


GeT Core Facility

- ① Genomics and Transcriptomics (GeT) core facility of Genotoul, located on 5 sites in Toulouse



- ① A team of more than 30 people :
 - Technological Specialty and Scientific community by site
 - Experts in Agronomy, Environment, Microbiology, Health
 - Skills in biology, bioinformatics, biostatistics



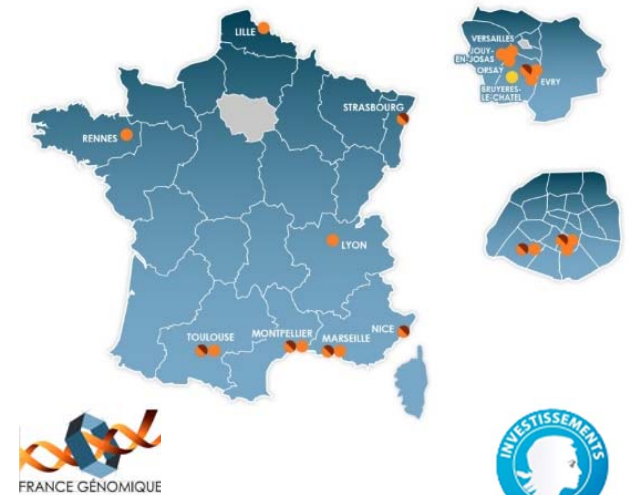
- ① Site managers are also GeT ambassadors in their scientific community

GeT Core Facility

- ⑤ Regional node of National Sequencing Infrastructure within the « France Génomique » PIA program

- ⑤ Quality Certification :

- ISO9001 (GeT-PlaGe, GeT-Biopuces)
- NFX 50 900 (GeT-PlaGe, GeT-Biopuces)
- Propel Illumina (GeT-PlaGe)



- ⑤ A strong partnership with Bioinfo platform



GeT Strategy

- ⑤ Develop a core facility with leadership or co-leadership in the platform networks at the regional (**Genotoul**), institutional (**INRA**), or national (**France Genomique**) levels, with as much as possible an **international visibility**



- ⑤ Provide the best technologies with appropriate expertise to public and private research teams for :
 - Genome **sequencing and resequencing**,
 - Genome **expression analysis**
 - **Genotyping**
- ⑤ Two main axes of technology developments :
 - Reduce the costs for **very high throughput (re)sequencing with short reads**
 - Improve interest of the information provided with **Long reads sequencing (best technologies, and best combination of technologies)**

A comprehensive portfolio of sequencers at GeT

Main sequencing technologies are present on one of GeT sites



Miseq
2x 300 pb
15 Gb



HiSeq3000
2x150 pb
700 Gb



ABI 3730 & 3130
600 pb



PGM
400 pb
2 Gb



Chromium
Synth reads with
Illumina



Pacbio RSII
15 000 pb
1.2 Gb (6h)



Minion & Gridion
25 000 pb
7 Gb (48h)



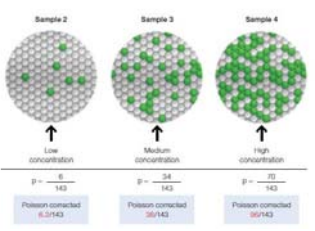
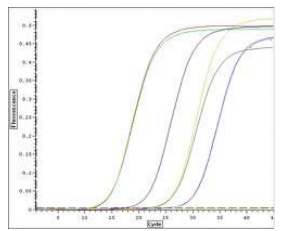
S5
400 pb
13 Gb



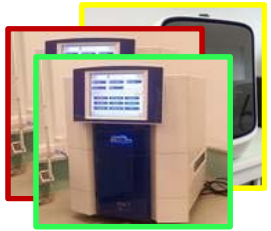
Tools for analysis of gene expression and genotyping



Quantitative PCR



Vii7,
QuantStudio,
ABI7900HT, ...



**QX200 ddPCR
(Biorad)**



Q-PCR Microfluidic



**BioMark
(Fluidigm)**



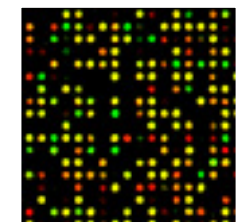
Single Cells



**C1 Chromium
(Fluidigm) (10x)**



Microarray



Affymetrix – Agilent

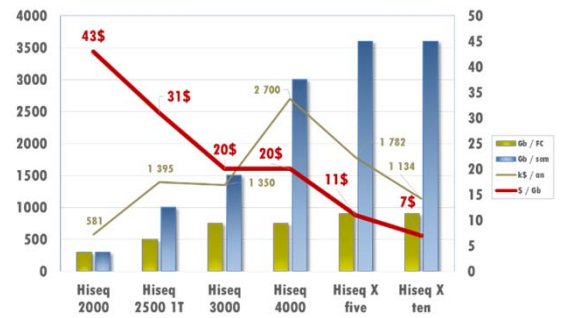


Next steps ... in 2018

Next technologies on GeT

Very high throughput for small fragments sequencing

Hiseq



Novaseq 6000

3000 Gb / run

December 2017

Very efficient long fragments sequencing

Minion
&
Gridion



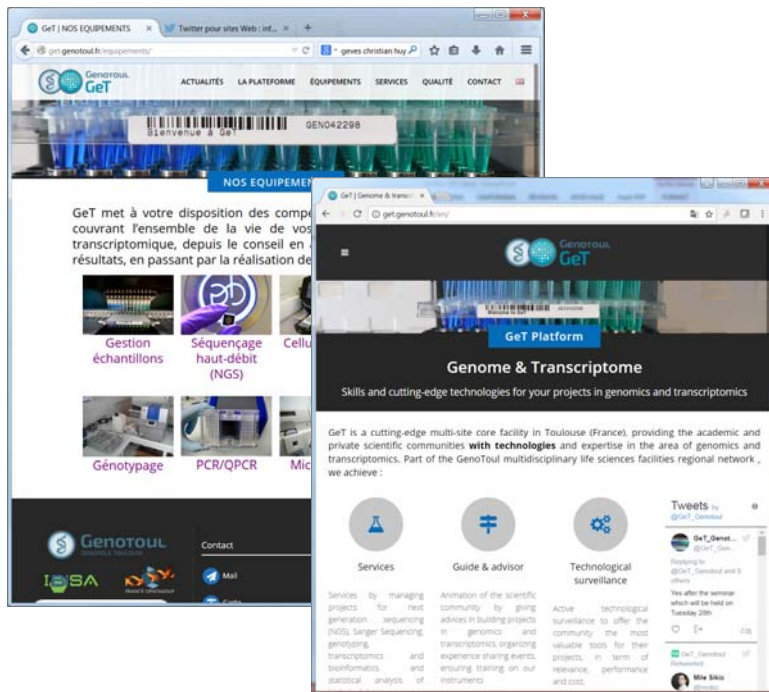
Promethion

48 Flow cells / run
2018



Two additional information since last user meeting

① A new web site in French & English



② A new team dedicated to private companies (with INRA Transfert)

GeT-IT

Dedicated to private companies



COMPLETE WORKFLOW from samples to data analysis



contact-get-it@inra.fr



in addition to twitter account [@get_genotoul](https://twitter.com/get_genotoul)



Today ... a day of experience feedback

Feedback of experience on the latest technologies implemented on GeT facility

- ⑤ **When we implement new technologies :**
 - We select **pilot projects** from first circle research teams
 - We partly fund the developments
 - We request a **sharing of experience** with other users during a feedback conference

- ⑤ **Last year we focussed on PacBio, this year we focus more specifically on Oxford Nanopore and 10x Genomics**

- ⑤ **A day labelled as ESOF day :**
 - **120** attendees in Toulouse
 - **100** registered sites of live streaming



Use **#GeT2017** on



Thanks

- ⑤ To **GeT teams** for the organisation
- ⑤ To **Genotoul**, for financial support
- ⑤ To **Research teams** for sharing their results and experience
- ⑤ To **all sponsors** for support
- ⑤ To **all attendees** for interest and discussions

... Have a nice day !