

Progenika Biopharma Group

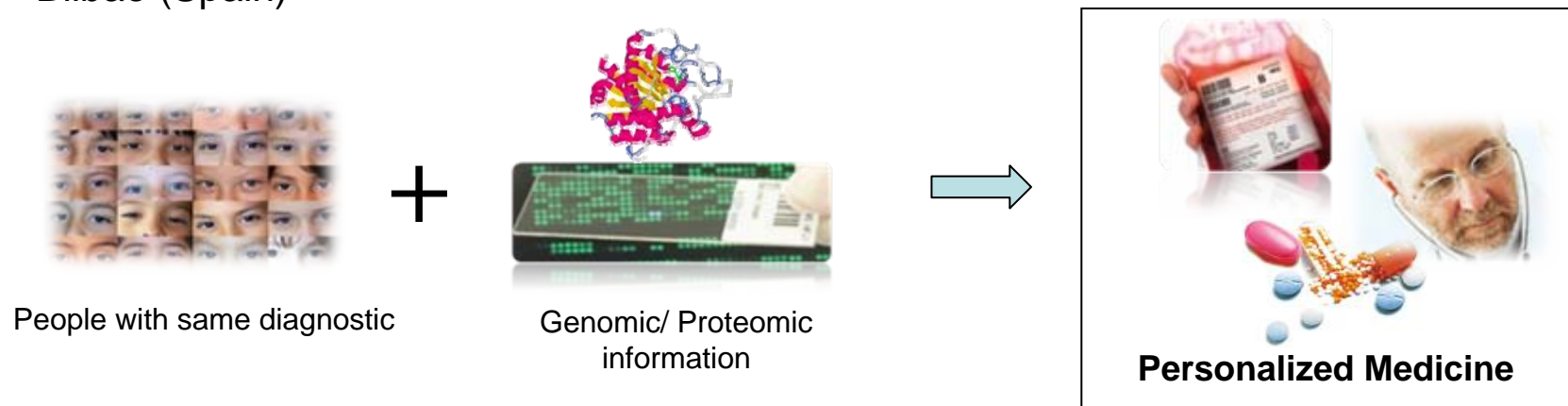
Foro del emprendedor BCN2011

5 Septiembre 2011

Progenika Biopharma
Pioneering Personalized Medicine

Progenika, leading company in Personalized Medicine

- ✓ Progenika is a leading company in the field of Personalized Medicine
- ✓ Progenika's mission is to improve healthcare system through development and commercialization of IVD tests for
 - Diagnosis and prognosis of complex diseases
 - Personalization of the treatment by predicting therapy response
 - Monitoring of therapy effectiveness
- ✓ Progenika was founded in 2000 and its headquarters are located in Derio, nearby Bilbao (Spain)



Overview of Progenika Group

2000



PROGENIKA BIOPHARMA

- Development, production and commercialization of new **genomic** tools for diagnosis, prognosis and drug-response prediction of human diseases
- State of the art of functional genomic technologies

2002



PROTEOMIKA

- Development of new **proteomic** tools for diagnosis, prognosis and drug-response prediction of human diseases

2007



ABYNTEK

- Development, production and commercialization of **recombinant proteins** and monoclonal and polyclonal **antibodies**

2007



PROGENIKA INC.

- Validates and **commercializes** Progenika products in the US market
- Headquarters located at Boston; CLIA laboratory

2008



BRAINCO

- Develops new drugs for the treatment of psychiatric disorders (Identification, validation of new therapeutic targets and drug development)

2010

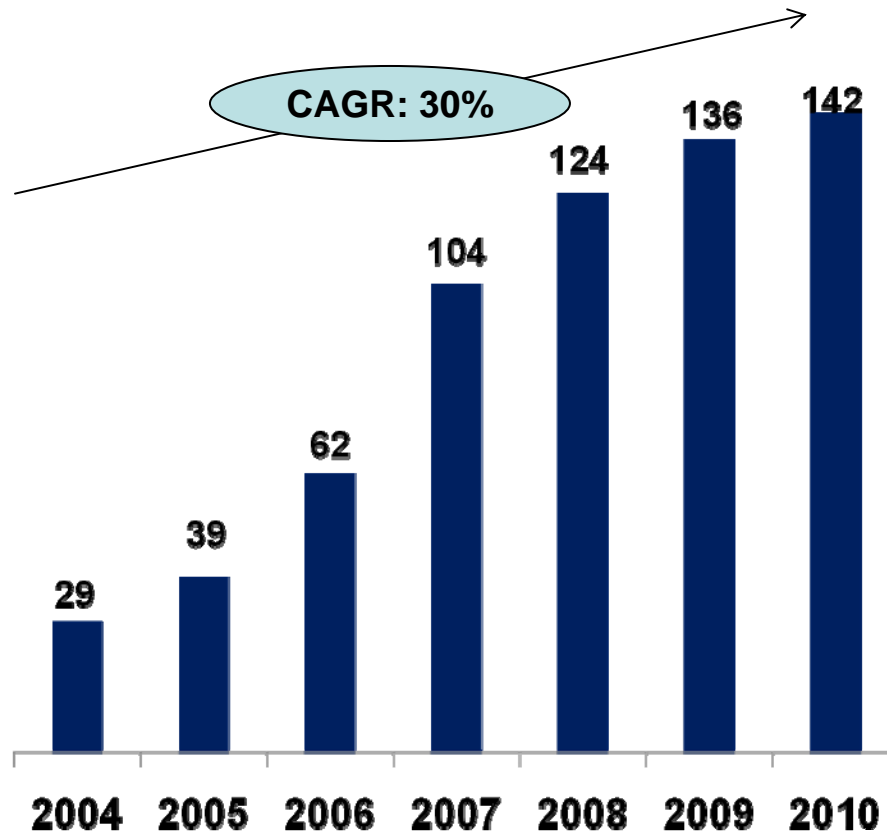


PROGENIKA LATAM

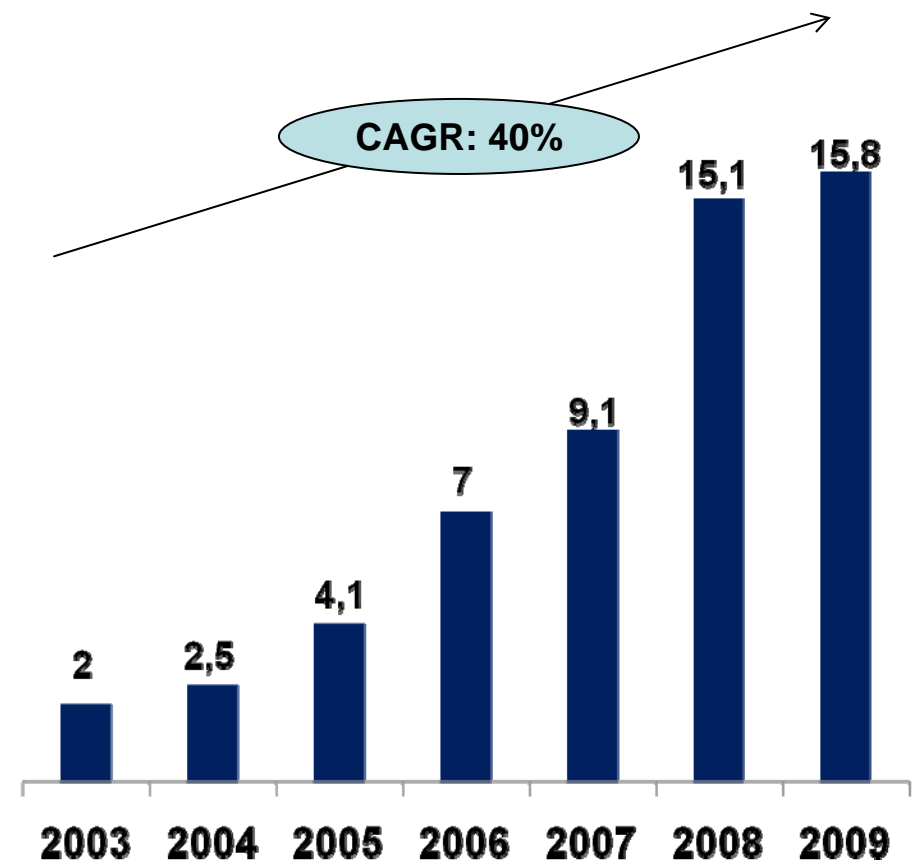
- Subsidiary (Sept 2010) for PGK products commercialization at LatAm
- Strong local partners own relevant stake: Inbursa (Mr. Carlos Slim's investment fund)

Progenika has solid growth over the last years

Progenika Group - Number of Employees



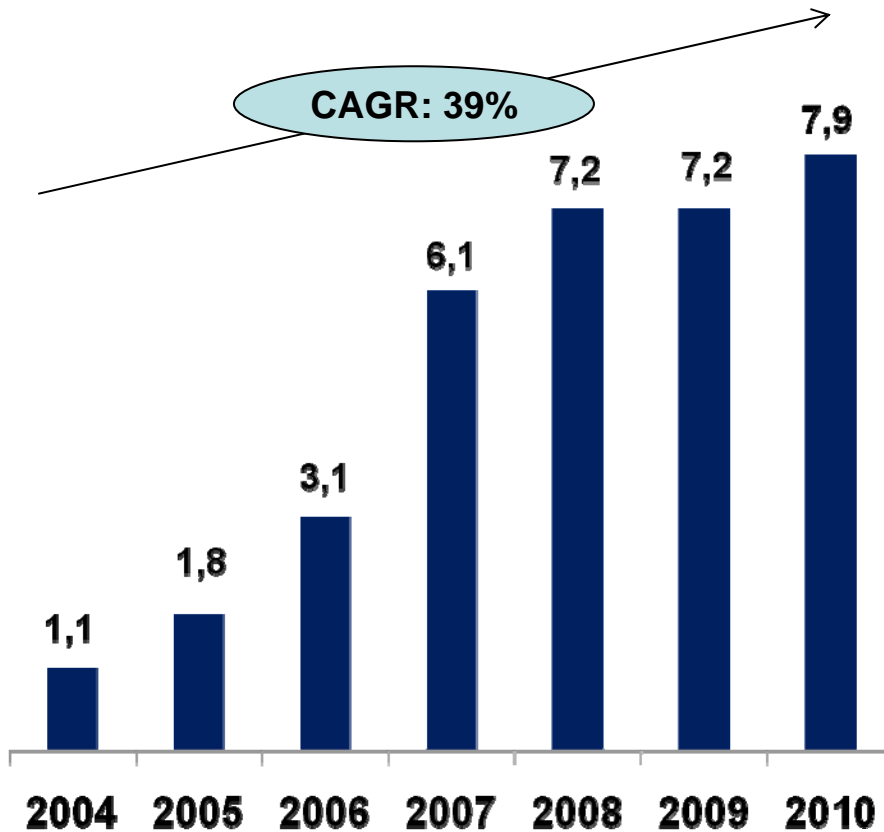
Progenika Group – Revenue Evolution (€M)



Highly qualified and diverse staff: 39% PhDs, 10% MBA, 10 Nationalities

Progenika has made a significant effort on R&D

Progenika Group – Investment in R&D (€M)



Reference in Personalized Medicine

- ✓ More than **50 projects** in collaboration with health care focused companies
- ✓ More than 30 scientific reports in the most relevant industry publications: Science, Clin Chem, Clin Cancer Res, Atherosclerosis, FEBS Lett,..
- ✓ More than **50 patents** filed and granted
- ✓ More than **60 presentations** conducted at International forums

Cancer Therapy: Preclinical

Targeting the Extracellular D
Receptor 3 with Human Sin
Bladder Carcinoma Cell Line
Jorge Martínez-Torrecuadrado,¹ Gabriela Cif
Antonio Martínez,² and J. Ignacio Casa¹

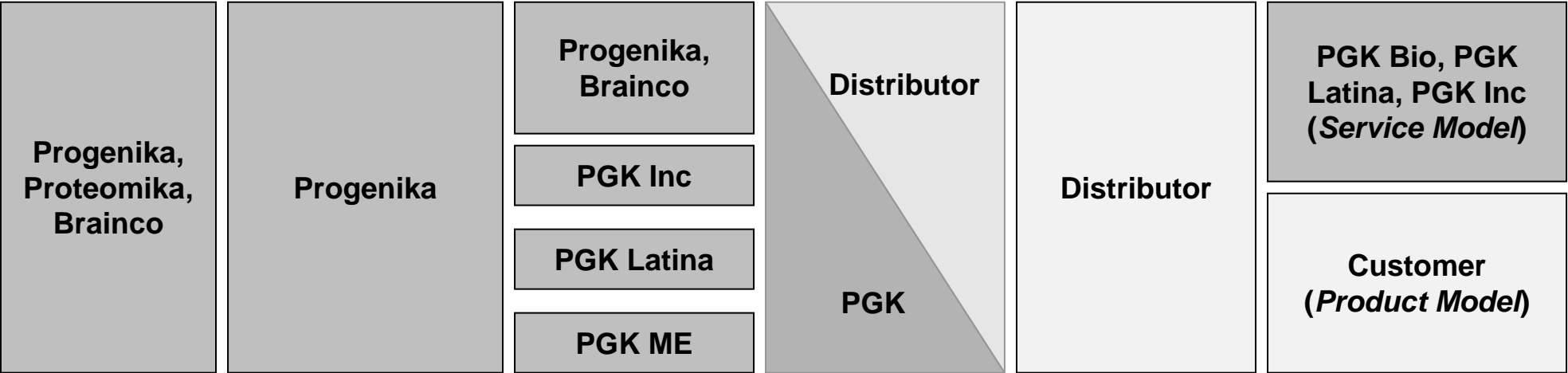
FEBS 2006
Tendon xanthomas in familial hypercholesterolemia are associated with
a differential inflammatory response of macrophages to oxidized LDL
Marta Artieda ^{aa}, Ana Cenarro ^a, Corina Junquera ^b, Pilar Laserra ^c,
María José Martínez-Lorenzo ^c, Miguel Pocovi ^d, Fernando Civeira ^{aa}
^a Laboratorio de Investigación Molecular, Hospital

Clinical Chemistry 532
239-247 (2007)
Hematology
Transcriptional Profiling of Hematologic
Malignancies with a Low-Density DNA Microarray
PATRICIA ÁLVAREZ,¹ PILAR SÁENZ,² DAVID ARTEAGA,² ANTONIO MARTÍNEZ,² MIGUEL P.
LAURIANO-SIMÓN,³ and PILAR GIREADO³

Clinical Chemistry 517
390-395 (2007)
Molecular Diagnostics
and Genetics
Reliable Low-Density DNA Array Based on Allele-
Specific Probes for Detection of 118 Mutations
Causing Familial Hypercholesterolemia
DINO TERROJO,¹ SERGIO CASTELLÓ,¹ PILAR MORALES,² ELENA BARRERA,³ MÓNICA LÓPEZ,⁴
M. TERESA TERROJO,² MARTA ARTIEDA,⁵ BORRERO ACOSTA,⁶ PABLO MAYA,⁷
LAURIANO SIMÓN,⁸ ANTONIO MARTÍNEZ,⁹ and MIGUEL POCHOVI,¹⁰ on behalf of the
Spanish HLL Group

Our Business Model - Foster growth through distribution agreements

Business Model	<ul style="list-style-type: none">• Focus on our “core capabilities” – R&D, manufacturing, analysis• Distribution agreements with best partner for each product on each market
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Abyntek

Progenika is already partnering with leading players



GRIFOLS



NOVARTIS



ITALFARMACO



ferrer



JUSTE



BIOIBERICA



LABCO
Quality Diagnostics

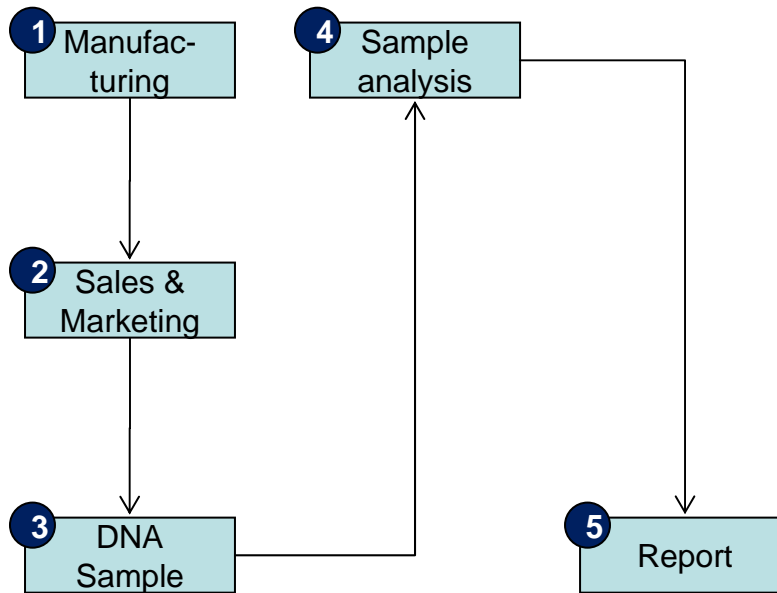


LandsteinerScientific

Progenika follows a product-service business model

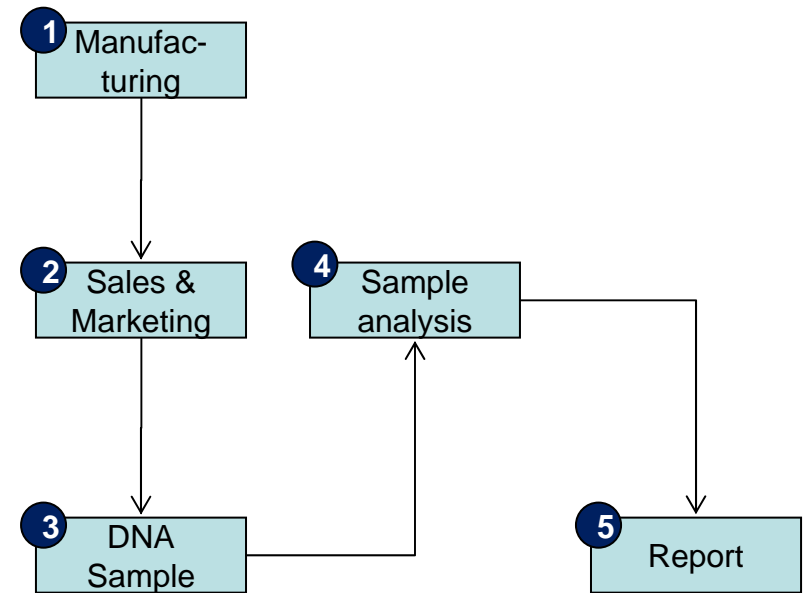
Model A: "Service"

- Progenika laboratories in Spain, USA and Mexico work as certified reference clinical laboratories



Model B: "Product"

- Progenika sets-up analysis platforms, so clients with high volumes can analyse the samples themselves
- Progenika takes care of the platform installation, as well as personnel training and technical assistance



Progenika

Partner

Client

PGK offers service model through its own labs and partnering agreements with 3rd parties

PGK Inc

- Own CLIA Lab at Boston, USA

PGK Biopharma

- Own lab at Bilbao, Spain

PGK Latina

- Own lab in Mexico DF
- Partnering with 3rd parties in Puebla and Monterrey

LIPOchip[®] to Diagnose Familial Hypercholesterolemia

- Includes ~250 variants in LDLR and APOB as well as copy number variation
- First DNA microarray to obtain CE mark in Europe



Reliable Low-Density DNA Array Based on Allele-Specific Probes for Detection of 118 Mutations Causing Familial Hypercholesterolemia

DIEGO TEJEDOR,^{1*} SERGIO CASTILLO,¹ PILAR MOZAS,¹ ELISA JIMÉNEZ,² MÓNICA LÓPEZ,²
M. TERESA TEJEDOR,³ MARTA ARTIEDA,⁴ RODRIGO ALONSO,⁵ PEDRO MATA,⁵
LAUREANO SIMÓN,² ANTONIO MARTÍNEZ,² and MIGUEL POCOVÍ,¹ on behalf of the
SPANISH FH GROUP

Clinical Chemistry 51:7 1137–1144 (2005)



Monitoring the treatment of biologicals

- Therapeutic parameterization of biological treatment
- Accurately predicts patient's response to treatment
- Early prediction of infusion reactions
- Optimizes treatment, assuring the correct therapy
- Cost-effective of biological therapies



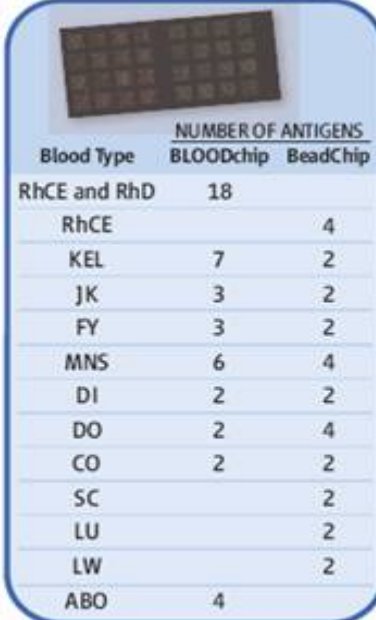
The Genotyping Opportunity Upon Replacement of Serology



MEDICINE

Blood-Matching Goes Genetic

Hoping to prevent adverse transfusion reactions and save lives, European researchers are lobbying to replace serology-based blood typing with matching based on DNA tests



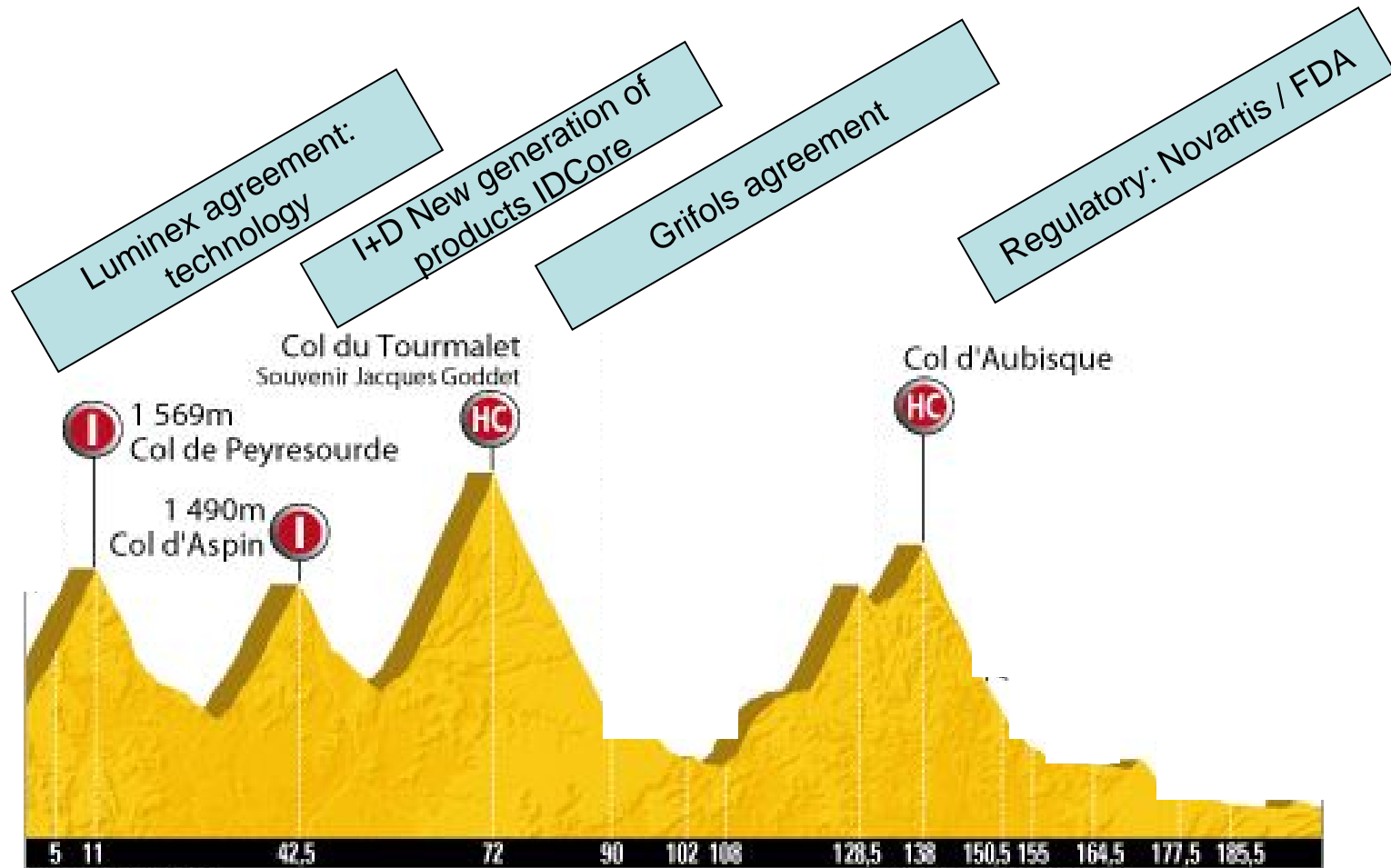
Blood Type	NUMBER OF ANTIGENS	
	BLOODchip	BeadChip
RhCE and RhD	18	
RhCE		4
KEL	7	2
JK	3	2
FY	3	2
MNS	6	4
DI	2	2
DO	2	4
CO	2	2
SC		2
LU		2
LW		2
ABO	4	

Chipping away. Two new gene chips (BLOODchip above) can test for many blood groups beyond ABO.

Source: *Science Magazine* VOL 319
Pg. 1479 (2008)

The race had just started....

Recent BloodChip history (2010-11)



Learned lessons

- **You will need synergies so focus where you are strong, as soon as you identify those strengths: technology, therapeutic area, product, etc**
- **Identify the best partners, you can't do everything alone: core team, technology, distribution, etc.**
- **Internationalization is a must...**
 -but internationalization means much more than being present in other countries: a lot of home work has to be done before going outside:**
 - **In biotechnology, internationalization doesn't mean Europe only, you must be present in the USA**
 - **The world is too big for a small fish: indentify the right distributor (not easy!!!!)**
 - **IP (both know-how protection as freedom-to-operate**
 - **Regulatory**

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