Our mission: *bring innovative therapies to patients with cancers*

2009

*Founded based on research done at*

Implanted at the largest French Biopark

Laboratory in

**4** Full time employees

**4** Part-time

Several awards

- 2009: Emerging projects
- 2010: Network Technology Services
- 2011: Creation and development
- 2010: Innovative Project Development Aid (AIMA)

Strong clinical network

Robust CMOs

- 2010: National Research Agency ANR Biotech
- 2011: Senate-ESSEC Springboard for Enterprises Award
<table>
<thead>
<tr>
<th>Product candidate</th>
<th>Indications</th>
<th>Discovery</th>
<th>Lead optimization</th>
<th>IND -enabling</th>
<th>Phase 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>INA01 (αCD71)</td>
<td>Blood Cancers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INA02 (αCD89)</td>
<td>Inflammatory diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Cells need iron to grow
- Iron binds to Tf to get inside the cell

*CD71 is a key therapeutic target in cancer*

- The more the cell proliferates the more the number of CD71 increases
Low density of CD71
Tf binds to its receptor

High density of CD71
INA01 targets the CD71

αCD71 mAb binds only to highly proliferative cells
αCD71 in vitro and ex vivo data

Apopotosis of multiple cell lines

<table>
<thead>
<tr>
<th>Cell line</th>
<th>Disease</th>
<th>cell type</th>
<th>IC_{50} nM</th>
</tr>
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<tbody>
<tr>
<td>Mec-1</td>
<td>Chronic lymphocytic leukemia</td>
<td>B</td>
<td>6,00</td>
</tr>
<tr>
<td>OSU</td>
<td>Chronic lymphocytic leukemia</td>
<td>B</td>
<td>0,87</td>
</tr>
<tr>
<td>Molt-4</td>
<td>Acute lymphoblastic leukemia</td>
<td>T</td>
<td>4,34</td>
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<tr>
<td>THP-1</td>
<td>Acute monocytic leukemia</td>
<td>Myeloid</td>
<td>3,67</td>
</tr>
<tr>
<td>NB4</td>
<td>Acute promyelocytic leukemia</td>
<td>Myeloid</td>
<td>1,00</td>
</tr>
<tr>
<td>HL-60</td>
<td>Acute myeloid leukemia</td>
<td>Myeloid</td>
<td>0,93</td>
</tr>
<tr>
<td>Molm 14</td>
<td>Acute myeloid leukemia</td>
<td>Myeloid</td>
<td>3,00</td>
</tr>
<tr>
<td>MV4-11</td>
<td>Acute myeloid leukemia</td>
<td>Myeloid</td>
<td>2,47</td>
</tr>
<tr>
<td>GRANTA-519</td>
<td>Mantle cell lymphoma</td>
<td>B</td>
<td>3,40</td>
</tr>
<tr>
<td>RS4;11</td>
<td>Acute lymphoblastic leukemia</td>
<td>B</td>
<td>2,93</td>
</tr>
<tr>
<td>RAMOS</td>
<td>Human Burkitt’s lymphoma</td>
<td>B</td>
<td>7,40</td>
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<tr>
<td>DAUDI</td>
<td>Human Burkitt’s lymphoma</td>
<td>B</td>
<td>3,80</td>
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<tr>
<td>Jeko</td>
<td>Mantle cell lymphoma</td>
<td>B</td>
<td>3,60</td>
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<tr>
<td>Mino</td>
<td>Mantle cell lymphoma</td>
<td>B</td>
<td>0,80</td>
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<tr>
<td>UPN-1</td>
<td>Mantle cell lymphoma</td>
<td>B</td>
<td>0,53</td>
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<tr>
<td>Jurkat</td>
<td>Acute T cell leukemia</td>
<td>T</td>
<td>1,27</td>
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<tr>
<td>CEM-CCRF</td>
<td>Acute lymphoblastic leukemia</td>
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<td>4,00</td>
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<tr>
<td>K562</td>
<td>Chronic myelogenous leukemia</td>
<td>Myeloid</td>
<td>4,94</td>
</tr>
<tr>
<td>U937</td>
<td>Leukemic monocytic lymphoma</td>
<td>Myeloid</td>
<td>5,47</td>
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<tr>
<td>Monomac-6</td>
<td>Acute myeloid leukemia</td>
<td>Myeloid</td>
<td>3,47</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Lung cancer</th>
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<th>23,28</th>
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<tbody>
<tr>
<td>SW2</td>
<td>Lung cancer small cells</td>
<td></td>
<td>12,74</td>
</tr>
<tr>
<td>MDA-MB-231</td>
<td>Breast cancer</td>
<td></td>
<td>9,47</td>
</tr>
<tr>
<td>G361</td>
<td>Melanoma</td>
<td></td>
<td>5,60</td>
</tr>
<tr>
<td>Caco-2</td>
<td>Colorectal cancer</td>
<td></td>
<td>21,21</td>
</tr>
<tr>
<td>Hela</td>
<td>Cervix cancer</td>
<td></td>
<td>17,81</td>
</tr>
</tbody>
</table>

Apopotosis of primary tumor cells

Acute Myeloid Leukemia

![Bar graph showing % of apoptosis for different αCD71 concentrations (µg/ml)]
POC in vivo HL-60 (multiple injections)

αCD71 in vivo data

Survival (%) vs. Days

- 1 mg/kg (n=9)
- 0.5 mg/kg (n=6)
- 0.1 mg/kg (n=9)
- 0 mg/kg (n=9)
αCD71 Targeted cancers

**Hematologic and solid tumors**

**Solid tumors – refractory patients**

**Hematologic tumors – refractory patients**

**Targeted solid and hematologic cancers**
- Acute myeloblastic leukemia
- Acute lymphoblastic leukemia
- Chronic lymphocytic leukemia
- Non Hodgkin Lymphoma
  - Lung small cells
  - Breast
  - Melanoma

**Targeted solid tumors**
- Lung small cells
- Breast
- Melanoma

**Targeted hematologic tumors**
- Acute myeloblastic leukemia
- Acute lymphoblastic leukemia
- Chronic lymphocytic leukemia
- Non Hodgkin Lymphoma

**Rational:**
- In vivo/in vitro results
- High proliferative cancers
- Market size
**αCD71 Market opportunity**

**27 B$**
Solid and hematologic tumors (in combination with other therapies)

**5,5 B$**
Solid tumors–refractory patients(*)

**3 B$**
Hematologic tumors – refractory patients(*)

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**Targeted solid and hematologic cancers**
- Acute myeloblastic leukemia
- Acute lymphoblastic leukemia
- Chronic lymphocytic leukemia
- Non Hodgkin Lymphoma
  - Lung small cells
  - Breast
  - Melanoma

**Targeted solid tumors**
- Lung small cells
- Breast
- Melanoma

**Targeted hematologic tumors**
- Acute myeloblastic leukemia
- Acute lymphoblastic leukemia
- Chronic lymphocytic leukemia
- Non Hodgkin Lymphoma

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*Sources: Global data, Markets and Markets for 2020, Acute market reports
(*) Hypothesis of 20% of patients*
Achievements and next steps

- **αCD71 lead optimization / PoC in vitro & in vivo**
  - **αCD71 Humanization and antibody optimization**
  - **αCD71 bioproduction**
    - **αCD71 pilot Tox**
    - **αCD71 reg. Tox**
    - **αCD71 Phase 1**

**Timeline:**
- **2011**: Fundings by ANR and BPI (3M €) License INSERM
- **2013**: Serie A (4 M€)
- **2015**: Funding ADI and FUI
- **2018**: Serie B
- **2020**: Deals with pharma
Development plan – next key milestones

- CMC Pilot Batch
- Regulatory Tox
- Phase I in hematologic diseases
- Phase II
- Phase III
- CMC GMP Batch
- Filing


Q2 2017 | Q4 2018
**αCD71 Phase I study synopsis**

<table>
<thead>
<tr>
<th>Number of patients</th>
<th>• 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient characteristics</td>
<td>• Advanced/relapse highly proliferative hematologic malignancies with unmet medical need</td>
</tr>
<tr>
<td>Centers</td>
<td>• Institut Paoli Calmette (Marseille) +/- additional center (France)</td>
</tr>
<tr>
<td>Primary objective</td>
<td>• Determine the safety profile (including DLT, MTD) and tolerability of mAb</td>
</tr>
</tbody>
</table>
| Secondary objectives | • Determine the pharmacokinetic (PK) profile  
• Evaluate preliminary anti-neoplastic activity  
• Assess the immunogenicity  
• Assess the duration of response, time to progression, and progression free survival in dose expansion phase |
<table>
<thead>
<tr>
<th>Patent number</th>
<th>Title</th>
<th>Type of protection</th>
<th>Inventors</th>
<th>Owner</th>
</tr>
</thead>
</table>
| US : 7,976,841 (12/07/2011) | Therapeutic method for lymphomas with anti-TfR mAb                | Antibody directed against the transferrin receptor (and its recombinant derivatives) as a drug in the treatment of cancer and IgA nephropathies                                                                 | • Renato Monteiro  
• Olivier Hermine  
• Ivan Moura  
• Yves Lepelletier | INSERM with a worldwide exclusive license for Inatherys |
| Europe: 1740616 (14/12/2011) | ANTI-TfR Antibodies and their use in treating proliferative and inflammatory disorders | Humanized INA01 and its recombinant mAbs as of proliferative and inflammatory diseases                                                                                                                       | • Pierre Launay  
• Hervé Souchet  
• Coralie Belanger | Inatherys |
| Europe: PCT positive opinion WO2017/013230 (21/07/2016) |                                                               |                                                                                                                                                                                                                    |                                              |                                              |
INA02 (αCD89)

- Target: CD89
- Stage: Pre-clinical
- Targeted indications: Inflammatory diseases
- 2011 Exclusive license from INSERM

- IP:
  - US: 7892538 (22/2/2011): “Uses of monovalent antibodies targeting CD89 (FcaRI) for immune disorders”
  - EU: 1720572 (5/1/2011): The invention relates to the use of a monovalent antibody fragment directed against the EC2 domain of the FcaRI receptor for the treatment of inflammatory diseases

- Currently being tested by ucb Pharma

*INA02 blocks the triggering of the inflammatory reaction*
Management team

Coralie BELANGER – CEO, CMO and co-founder
• MD (Paris V), HEC (Challenge + training program)
• 35 years of experience as hospital practitioner (Necker Hospital adult hematology service) and Novartis (Oncology Business Unit)

Pierre LAUNAY – CSO, COO and co-founder
• PhD in Immunology (Paris V), HEC (Challenge + training program)
• 20 years of experience in research on monoclonal antibodies (Inserm Research Director, Former instructor at Harvard Medical School, scientific consultant for Synta Pharmaceuticals)
• Board member of Inotrem

Cecile REAL – Corporate Advisor
• Biomedical engineer (UTC) with a MBA
Other founders

**Olivier HERMINE**
- Professor in Hematology, Head of Hematology department at Necker hospital, France.
- Co-founder Inatherys & AB Science
- Member of the Scientific Advisory Board

**Renato MONTEIRO**
- Professor in Immunology at Bichat-Claude Bernard Hospital
- Extensive expertise in monoclonal antibodies production
- Co-founder Inatherys
- Member of the Scientific Advisory Board

**Ivan MOURA**
- PhD University of Sao Paulo, Post-Doctoral (Curie Institute, Necker Hospital), Researcher at Bichat Hospital
- Extensive expertise in in vivo concept of antibodies, tox and bio-production of humanized antibodies
- Co-founder Inatherys
- Member of the Scientific Advisory Board
Board members

Dominique MEGRET

- HEC graduate
- 40 years of experience (Accenture, Paribas, M&M Capital, RTL)
- Chairman of numerous French or foreign companies (Cobepa, Amora-maille, Panzani, Royal Canin, Eiffage, Keolis, UGC, United Biscuits, Ciments-Français, French Museums and Monuments, Elis, Yoplait, Viarte, CHR Hansen, Perstorp, Spie, Kwik-Fit, Grupo Coin, Atos and M6).
- Manager of Figem and Administrator of Scanpay

Jacky VONDERSCHER

- Expert of exploratory research and new molecules’ early development
- Over 30 years experience in pharma company (Roche) at various R&D executive positions in US and Europe
- Co-inventor of numerous medicine patents which 3 of them have entered the market.

Anne BOUSSEAU

- Over 30 years experience in medical and Oncology
- Former Head of Early Development Sanofi Oncology
Our exit strategy

- Bring αCD71 up to Phase I/IIa study in patients with advanced/refractory hematological malignancies
- Do an early licensing deal for INA02

Options:
- Buyout by a pharma
- Co-development with pharma
- IPO
## Benchmarking buyout & co-dev

<table>
<thead>
<tr>
<th>Acquirer</th>
<th>Company</th>
<th>Description</th>
<th>Date</th>
<th>Deal amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>abbvie</td>
<td>Stemcentrx</td>
<td>5 mAbs (1 positive Ph1 in lung cancer, others in pre-clinic)</td>
<td>2016</td>
<td>• 2 B$ in cash&lt;br&gt;• 3,8 B$ in stock&lt;br&gt;• 4 B$ additional up achievement of milestones</td>
</tr>
<tr>
<td>Cellnex therapeutics</td>
<td>kolltan Pharmaceuticals, Inc</td>
<td>2 mAbs (in Ph1) TAM discovery program</td>
<td>2016</td>
<td>• 62 M€ upfront&lt;br&gt;• 235 M€ total up achievement of milestones</td>
</tr>
<tr>
<td>Bristol-Myers Squibb</td>
<td>innate pharma</td>
<td>IPH2102 (in Ph1)</td>
<td>2011</td>
<td>• 35 M€ upfront&lt;br&gt;• 465 M€ total up achievement of milestones</td>
</tr>
</tbody>
</table>
• Still high unmet need both for hematological and solid tumors – life expectancy remains low

• Inatherys proposed an innovative treatment with a αCD71 mAb targeting the transferrin receptor
  • Targets specifically highly proliferative tumors
  • Strong preclinical data supporting efficacy and safety

• Inatherys opens a second investment round in order to finalize:
  • GMP production
  • Regulatory toxicology study
  • First in human - Phase I study

“Compelling investment opportunity – affordable amount compared to high stakes”