Forward Looking Statements

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A late-stage orphan oncology company

**Targeting markets with high unmet medical needs**
- Acute leukemia
- Selected solid tumors
- Seven orphan drug designations

**Highly innovative and industrialized technology**
- Encapsulation of therapeutic compounds in red blood cells
- Broad application potential
- Strong IP protection

**Late stage clinical pipeline**
- Positive top-line Phase III results ALL
- Phase IIb in AML >50% enrolled
- Phase II ongoing in pancreas cancer
- Phase I/II ongoing in ALL in US

**Solid corporate basis**
- Listed on Euronext (ERYP.PA)
- EUR 38 million cash
- Partnerships with Recordati in Europe and TEVA in Israel
Innovative and versatile technology platform

Entrapment of drug substance inside Red Blood Cells using hypotonic/hypertonic stress

- Controlled lysis (hypotonic stress)
- Resealing (hypertonic stress)

Proprietary ‘osmotic fragility’ process ensures quantifiable amounts of drug are captured in each RBC batch

Protected by 13 patent families

Industrialized in commercial scale GMP manufacturing facility
Asparaginase: an essential weapon against acute leukemia, but toxic

<table>
<thead>
<tr>
<th>The principle</th>
<th>Starving cancer cells by affecting their supply of essential nutrients</th>
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<tbody>
<tr>
<td>Tumor starvation</td>
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<table>
<thead>
<tr>
<th>The key nutrient:</th>
<th>Asparagine, essential nutrient for most tumor cells, but not for normal cells</th>
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<tbody>
<tr>
<td>Asparagine</td>
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<table>
<thead>
<tr>
<th>The weapon:</th>
<th>Asparaginase, degrades asparagine and deprives tumor cells of key nutrient</th>
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<tr>
<td>Asparaginase</td>
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<tr>
<th>Proven efficacy</th>
<th>in ALL; cornerstone in all pediatric ALL treatment protocols</th>
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<tr>
<th>The issues:</th>
<th>Asparaginase can cause severe side effects (allergic shock, thrombosis and pancreas/liver problems) especially in fragile patients</th>
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<tr>
<td>Toxicity and short half-life</td>
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</table>

| - Asparaginase has a short half-life (<1 day; high dose and frequent administrations need) |
Encapsulation of asparaginase: GRASPA®, an innovative solution...

1. The asparaginase is definitively encapsulated in the red blood cell.

2. The asparagine circulating in the blood is pumped into the red blood cell...

3. ...where the encapsulated asparaginase destroys it

- Asparagine
- Asparaginase
- Antibodies
- Macrophages

RBC membrane prevents interactions between the asparaginase and the body:

- Longer half-life
- Less toxicity
Targeting the large unmet need of fragile acute leukemia patients

82% of patients with acute leukemia receive little or no treatment with existing asparaginases

Unmet need: >$1 billion

Addressed needs: $250 million
- Native asparaginase ($25m)
- PEG-asparaginase - Oncaspar® ($50m)
- Erwinase® ($175m)

"AML"
34,000 new cases per year

"ALL"
16,000 new cases per year

18% of patients

82% of patients

Source: Erytech; European and US data
Late stage clinical development: 6 trials in acute leukemia

|--------|------|------|------|------|------|------|------|------|------|------|
| ALL - Europe
Adults & children in relapse | | | | | | | | Phase I/II | | |
| ALL - France
Adults >55 yrs first line | | | | | | | | Phase II | | |
| ALL - France
Children & adults at risk | | | | | | | | EAP | | |
| ALL – US
Adults > 40 yrs in first line | | | | | | | | Phase I/II | | |
| AML – Europe
Seniors > 65 years in first line | | | | | | | | Phase IIb | | |

- **In ALL**
  - Top line results available for European pivotal Phase III trial
  - Expanded Access Program (EAP) launched for patients intolerant to asparaginases
  - Phase I/II ongoing in US; 3 centers open for enrollment (N = 12 to 18)
- **In AML**
  - More than half of patients recruited in Phase IIb trial (N = 123)
  - Positive DSMB safety reviews on first 30 and 60 patients
A multicentre, open, randomized, Phase II/III study, evaluating efficacy and safety of erythrocytes encapsulating L-asparaginase (GRASPA®) versus reference L-asparaginase treatment in combination with standard chemotherapy in patients with first recurrence of Philadelphia negative Acute Lymphoblastic Leukemia.

- 80 Patients aged 1 to 55 years with 1st relapse of ALL (Ph−)
- Known allergy to native L-asparaginase (grade ≥2)
- Randomization

Chemotherapy (COOPRALL)

- Induction
- Conso & Maintenance

- GRASPA® + Chemotherapy
- GRASPA® + Chemotherapy
- GRASPA® + Chemotherapy
- GRASPA® + Chemotherapy
- Ref L-aspa + Chemotherapy
- Ref L-aspa + Chemotherapy
Positive top-line Phase III results: top-line results

Both primary endpoints met with high statistical significance:

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Non-allergic patients</th>
<th>Allergic patients</th>
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<tr>
<td></td>
<td>GRASPA®</td>
<td>Ref L-aspa</td>
</tr>
<tr>
<td>Number (%) of patients who experienced ≥ 1 allergic reaction during induction treatment</td>
<td>0 (0%)</td>
<td>12 (43%)</td>
</tr>
<tr>
<td>Mean duration of asparaginase activity above 100 IU/L during induction treatment</td>
<td>20.5 days</td>
<td>9.2 days</td>
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Secondary endpoints confirm favorable clinical efficacy of GRASPA®

- At the end of the induction phase, 71.4% (15/21) in the GRASPA® arm were in complete remission compared to 42.3% (11/26) in the control arm.

Full data being analyzed for presentation at future scientific conference

Basis for registration in ALL in Europe and for further leveraging the product and platform in other oncology indications
The expanded access program (#NCT02197650) was set up to provide access to GRASPA® to ALL patients, in first line or relapse, who are at risk of hypersensitivity reactions due to previous allergies to both the *E. Coli* and *Erwinia* derived asparaginases.

Initial results will be presented at ASH:

- Four patients with prior allergies to E.Coli derived and Erwinia derived asparaginases
- Three of the 4 patients received 2 injections of GRASPA, the fourth to receive second dose
- One grade 1 hypersensitivity observed, resolved after 2 days, no problem with second dose

Programs continues to enroll patients in France

Basis for accelerated approval track?
First extension of indication, AML in Phase IIb

AML, a logical extension of indication
- Large unmet medical need: ~34,000 new patients per year (US & EU)
- Predominantly senior patients (median age: 67 years), where the favorable safety profile of GRASPA® may be a particularly advantage
- Large proportion of AML blasts are deficient in ASNS activity and have shown to be sensitive to asparaginase
- Increased CR rates observed with asparaginase in earlier clinical studies
- Toxicity of asparaginase has been limiting factor to broader use in AML

Phase IIb study ongoing in AML patients over 65 years of age in Europe
- Multinational, randomized controlled in 123 patients, 2-to-1 comparison of GRASPA® plus low dose cytarabine to low dose cytarabine alone
- More than half of patients recruited
- Positive safety evaluations by DSMB on 30 and 60 patients
- Next DSMB early 2015 (safety and futility)
- Full data read-out expected mid 2016
Solid tumors: mode of action confirmed in all tumor types

Source: Dufour e.a., Pancreas 2012 (in collaboration with MD Anderson Cancer Center Houston)
Pancreas cancer: entering the field of solid tumors

One of most aggressive cancers. Ca 125,000 new patients per year in Europe and the USA; 5 year overall survival <10%

Phase I study performed in 12 patients
  ▶ Monotherapy in dose escalation; single injection
  ▶ Conclusion: ERY-ASP given in last line therapy is well tolerated even at the highest dose (150 IU/kg)

72% of >600 biopsies analysed have no or expression of ASNS

Phase II study launched to evaluate efficacy in association with current chemotherapy and with a stratification of patients based on expression of ASNS
  ▶ Ca 90 patients in second line treatment
  ▶ 2-to-1 randomization to standard chemotherapy (without ERY-ASP)
  ▶ Primary endpoint: PFS at 4 months
  ▶ Five centers open and enrolling in France
  ▶ First patient enrolled in July 2014
NH Lymphomas: possibility to extend the hemato-oncology franchise

NH Lymphomas represent a large unmet medical need: ca 180,000 new cases per year in Europe and the US combined.

L-asparaginase is well known to physicians treating lymphomas. Particular need and rationale in Diffuse Large B-Cell Lymphoma (DLBCL) representing 30-40% of all Non-Hodgkin Lymphomas.

More than 85% of DLBCL biopsies analyzed have been shown to be ASNS deficient (sensitive to asparaginase).

Based on the available data in acute leukemia, ERYTECH is preparing a Phase II study in DLBCL for launch mid 2015 in Europe.
Other enzymes to strengthen the personalized medicine approach

At least two other amino acids and their respective enzymes have been identified as relevant for ‘tumor starvation’ treatments

<table>
<thead>
<tr>
<th>Enzymes</th>
<th>Asparaginase</th>
<th>Methionine-γ-liase</th>
<th>Arginine-deaminase</th>
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<tbody>
<tr>
<td></td>
<td>Leukemia</td>
<td>CNS &amp; Brain</td>
<td>Liver</td>
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<tr>
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<td>Lymphoma</td>
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<td>Melanoma</td>
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<td>Myeloma</td>
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<td>Lymphoma</td>
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ERYTECH is the lead partner in a syndicate R&D program and benefits from €7M government funding over 7 years to develop additional encapsulated enzyme products with their companion tests and bring them to the clinic.

ERY-MET, methioninase in RBCs, identified as promising new product candidate. Start of Phase I clinical trial aimed by end 2015.
Clear strategy to broaden the franchise

**Broaden scope in hematological malignancies**
- Complete development and obtain registration in ALL and AML in Europe
- Accelerate development in the US
- Broaden geographic scope: other regions outside Europe
- Advance NH Lymphoma in Phase II study

**Extend to solid tumors**
- Complete Phase II study in pancreas cancer
- Advance other solid tumor indication in Phase II study
- Advance ERY-MET into Phase I study

**Leverage the platform**
- Pursue business development opportunities in cancer vaccination and tolerance induction
### Solid news flow and significant value inflection points ahead

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<tr>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<td>![Checkmark] Launch Phase II solid tumor study: pancreas</td>
<td>![Checkmark] 3rd DSMB Phase IIb AML (safety &amp; futility)</td>
<td>![Checkmark] Launch ERY-MET Phase I trial</td>
</tr>
<tr>
<td>![Checkmark] First patient US ALL study</td>
<td>![Checkmark] 2nd DSMB Pancreas Phase II</td>
<td>![Checkmark] EU marketing authorization ALL</td>
</tr>
<tr>
<td>![Checkmark] 2nd DSMB Phase IIb AML study</td>
<td>![Checkmark] EU MAA submission ALL</td>
<td>![Checkmark] Results US Phase I/II ALL study</td>
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<tr>
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<td>![Checkmark] Updates on US Phase I/II ALL study</td>
<td>![Checkmark] Results Phase IIb AML study</td>
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<td>![Checkmark] Full Phase III results ALL</td>
<td>![Checkmark] Complete enrollment AML Phase IIb study</td>
<td>![Checkmark] Results Phase II pancreas cancer</td>
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<td>![Checkmark] 1st DSMB Pancreas Phase II study</td>
<td>![Checkmark] Launch Phase II in NH Lymphoma</td>
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<tr>
<td></td>
<td>![Checkmark] Launch Phase II in solid tumor indication</td>
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Key financials

- €30 M raised in private placement on October 23, 2014
  69% US specialized investors

- Cash balance on October 23, 2014 (post capital increase): ~ €38 M

- Net cash consumption
  €7.8 M in 2013 (including €0.6 M extraordinary cost related to the IPO)

- Shareholder structure:
  Total number of shares: 6,882,761

- Warrants (management and board):
  332,180 (exercise price 7.36 €/share)
  225,000 (exercise price 12.25 €/share)
In summary: delivering on the IPO promise to create a strategic value

- Focused orphan drug company: targeting clear unmet medical needs, 7 ODD
- Lead product, GRASPA®, in final stages of clinical development in acute leukemia in Europe
- Major strategic partnerships concluded: Orphan Europe (Recordati) & TEVA
- Clear path to US market: clinical development launched & building foothold
- Attractive development & partnering opportunities:
  - North-America and other territories outside Europe
  - Other hematological and solid tumor indications
  - Cancer immunotherapy and tolerance induction platforms

A late-stage biopharma company
Building a strategic value
Thank you

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