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BUSINESS & FINANCIAL UPDATE
Q4 and FY 2020

March 9, 2021

Forward Looking Statements

The statements made in this presentation may include forward-looking statements regarding the future operations of ERYTECH Pharma S.A., including estimates of target market opportunity, timing of planned clinical trials and results from those trials, regulatory strategy and timing of planned regulatory submissions, manufacturing capabilities and strategy for expansion of the ERYCAPS platform. Although we believe that the expectations contained in this presentation are reasonable, these forward-looking statements are only estimates based upon the information available to ERYTECH Pharma S.A. as of the date of this presentation. The company's expectations regarding the effects of COVID-19 on the Company's trials and development may be incorrect. Except as required by law, we expressly disclaim any responsibility to publicly update or revise our forward-looking statements, whether as a result of new information, future events or otherwise. Thus, the forward-looking statements herein involve known and unknown risks and uncertainties and other important factors such that actual future operations, opportunities or financial performance may differ materially from these forward-looking statements. Undue reliance should not be placed on forward-looking statements, which speak only as of the date hereof. All forward-looking statements contained herein are qualified in their entirety by the foregoing cautionary statement.

ERYTECH FY2020 Earnings Call

Introduction and Business Highlights
- Gil Beyen, Chief Executive Officer

Update on Clinical Programs
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Questions & Answers

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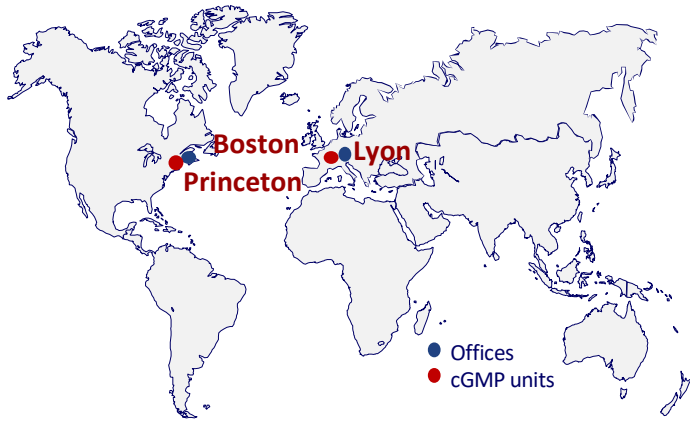
Leader in Red Blood Cell-based Cancer Therapeutics

- Reproducible encapsulation of therapeutic compounds in red blood cells with proprietary ERYCAPS® technology
- Focus on oncology, targeting cancer cells' altered amino acid metabolism through encapsulated asparaginase
- Lead product candidate eryaspase, demonstrated safety and efficacy in multiple clinical trials in ALL and pancreatic cancer
- Four clinical programs, two of them potentially pivotal
  All four expected to report in 2021
- Industrialized production: own cGMP production facilities in the United States and Europe (>4000 clinical batches produced)
- Listed on Nasdaq and Euronext
  Shareholder base incl. BVF (~20%) and RA Capital (~10%)



Indication	Phase 1	Phase 2	Pivotal
Pancreatic Cancer 2L	TRYbeCA-1		
ALL - Allergy to PEG-ASNase	NOPHO IST		
Triple Negative Breast Cancer	T-2		
Pancreatic Cancer 1L	IST		

ALL: acute lymphoblastic leukemia; PAC: pancreatic cancer; 1L: First line; 2L: second line;
IST: Investigator-sponsored trial; cGMP: current good manufacturing practice

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2020, Year of Tremendous Progress in Challenging Times

TRYbeCA-1 Phase 3 trial in 2L metastatic pancreatic cancer fully enrolled (512 patients)

NOPHO-sponsored Phase 2 trial in acute lymphoblastic leukemia (ALL) met primary endpoint

Phase 1 IST in 1L pancreatic cancer launched, First cohort enrolled

One Mission

Help patients live longer, better

Manufacturing operations delivered uninterrupted supply during pandemic

Leadership and Board strengthened

€10 million non-dilutive financing secured and new financing instruments established

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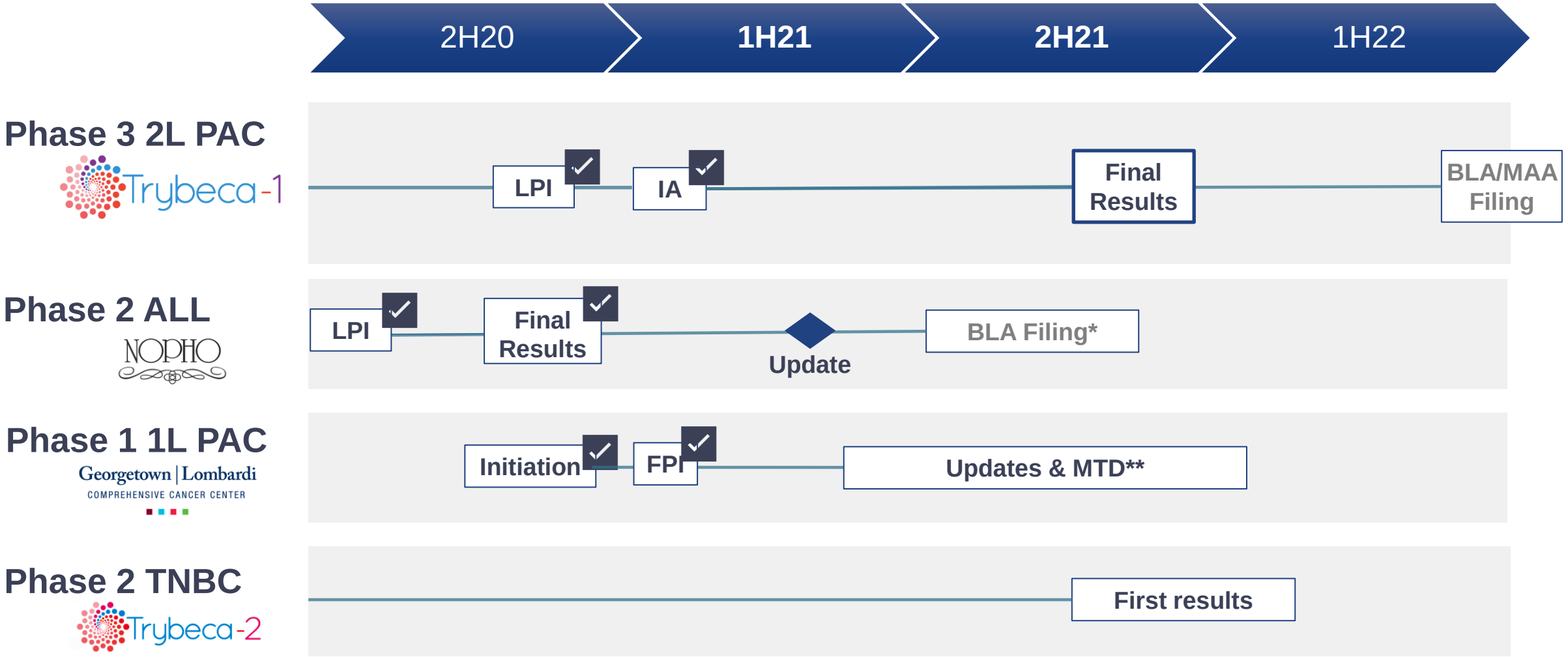
On Track for Key Catalysts Ahead in 2021



- Subject to discussions with FDA; LPI last patient in; FPI first patient in; IA interim analysis; MTD maximum tolerable dose

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TRYbeCA-1, Pivotal Phase 3 Trial in 2L Advanced PAC

Pascal Hammel MD PhD
Co-PI, Hôpital Beaujon, Paris, France

Manuel Hidalgo MD PhD
Co-PI, Weil Cornell, New York, U.S.

Trybeca-1

Patients (N ≈ 500)

- ≥18 years
- Stage III or IV PAC
- One prior systemic chemotherapy in advanced setting
- Measurable disease
- ECOG PS 0 or 1

Randomize 1:1

Chemotherapy
(gemcitabine+nabpaclitaxel or FOLFIRI)
plus eryaspase

Chemotherapy alone
(gemcitabine+nabpaclitaxel or FOLFIRI)

Stratification by ECOG PS, chemotherapy regimen and time since diagnosis of advanced disease

Primary endpoint

- Overall Survival

Key secondary endpoints

- Progression-free survival
- Objective response rate
- Disease control rate
- Safety and tolerability
- Quality of life

89 clinical sites activated in Europe (11 countries) and the United States

Reference: ClinicalTrials.gov: NCT03665441
ECOG, Eastern Cooperative Oncology Group; PS, performance status
FOLFIRI, 5FU/leucovorin/irinotecan; the irinotecan can be Onivyde (nanoliposomal irinotecan or NALIRI)

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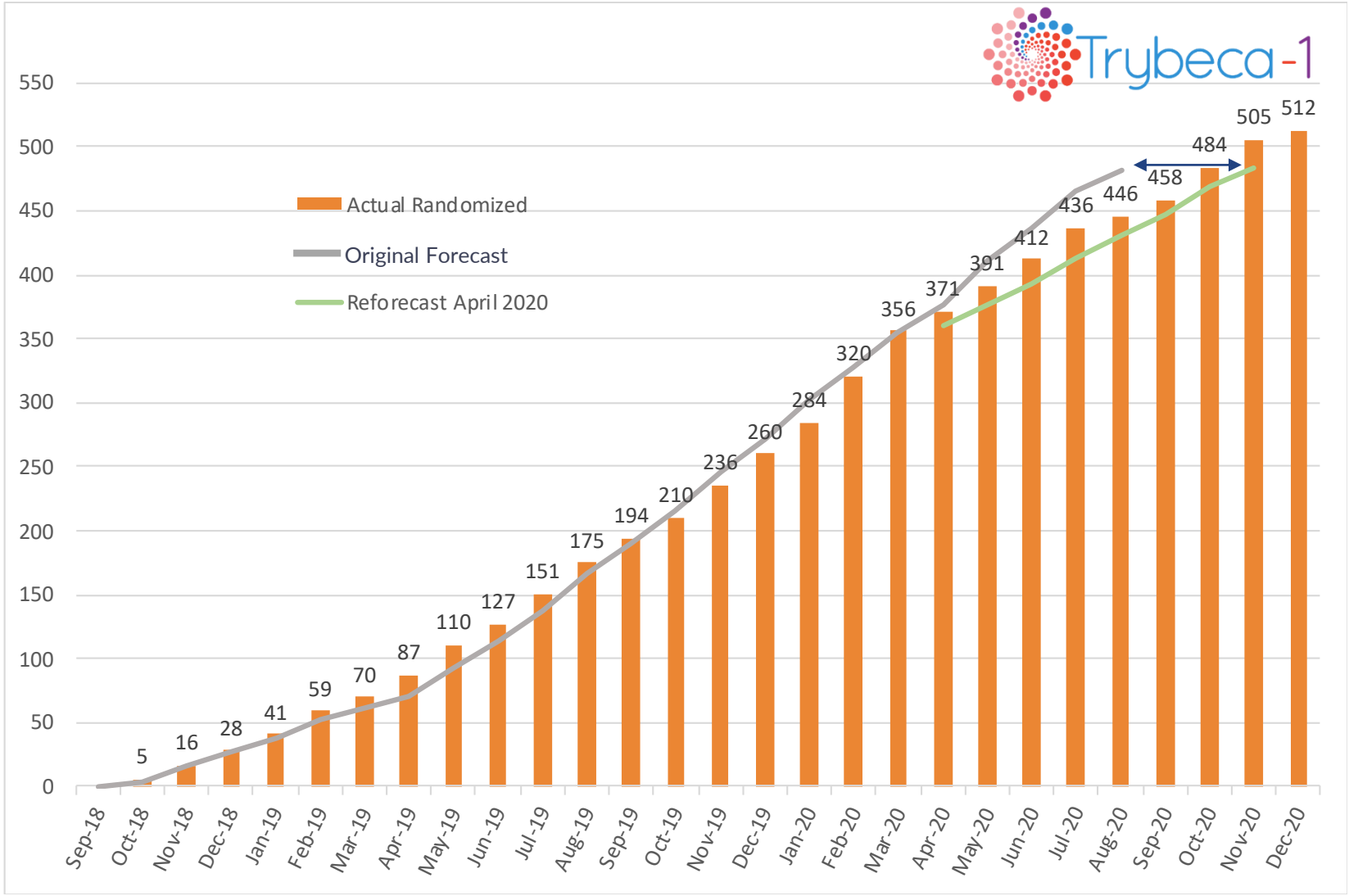
TRYbeCA-1 Fully Enrolled and On Track for Final Analysis in 4Q21

- Fully enrolled; 512 patients randomized, slightly above target enrollment of 482 patients
- Four safety reviews by independent data monitoring committee (IDMC), the last one on data of 480 patients, confirmed acceptable safety profile
- In February, IDMC recommended to continue trial until completion after interim efficacy analysis triggered by 2/3 of events
- Final analysis expected in Q4 2021



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Phase 2 IST in Hypersensitive ALL Patients Completed Positive

- Evaluation of safety and activity of eryaspase in combination with chemotherapy in ALL patients who developed hypersensitivities to pegylated asparaginase
  - Sponsored by the Nordic Society of Paediatric Haematology and Oncology (NOPHO)
  - Conducted at 22 clinical sites in the Nordic and Baltic countries of Europe
  - Primary endpoint: pharmacokinetics (enzyme activity)
- Trial completed enrollment in July 2020; 55 patients treated
- Positive results presented at ASH 2020 Annual Meeting (see next slide)

Birgit Klug Albertsen MD PhD

Aarhus University Hospital
Denmark

NOPHO

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Positive Results Presented at ASH 2020

Study conclusion

- Eryaspase demonstrated:
  - Sustained asparaginase activity >100 IU/L 14 days after first infusion
  - Low risk of hypersensitivity
  - Few adverse events → generally very well-tolerated
    - No pancreatitis and few liver toxicities
- Almost all patients were able to receive the intended courses of asparaginase, supported by the convenient eryaspase dosing schedule every 2 weeks

The study confirms the potential of eryaspase as an attractive treatment option for ALL patients with hypersensitivity to PEG-asparaginase

American Society *of* Hematology

Line Stensig Lynggaard, MD

Opportunity in ALL - Hypersensitivity Segment

- Estimated annual treatable population (US) : ~ 1,000 patients
  - US ALL Incidence[1]: 6,150
  - Est. 15-20% of patients treated with asparaginase and develop hypersensitivity/silent inactivation
- One product approved, Erwinaze, facing supply shortages
- Unmet medical need, confirmed by FDA
- Potential for eryaspase to be positioned favorably vs. Erwinaze :
  - Duration of asparaginase activity
  - Convenience – once every 2 wk dosing of eryaspase vs. im/iv dosing 3x per week
  - Tolerability
- Evaluating potential for U.S. approval based on NOPHO IST; expect update in Q2.
- If potential path confirmed, plan to:
  - Request pre-BLA meeting and prepare path to BLA filing
  - Seek CHMP advice for potential marketing authorization application

1. American Cancer Society, Cancer Facts and Figures 2020

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Eryaspase as a Potential Replacement Therapy

Trial	Erwinaze AALL07P2*	Eryaspase NOR-GRASPALL 2016
n	58	55 (53 pediatric)
Median age (range)	11 (2-18)	6 (1-45)
Dose/Frequency	25000 IU/m2 intramuscularly (6 doses per 2 wk course)	150 IU/kg intravenously (1 dose every 2 wks)
Median doses/courses administered (range)	3 (1-9)	5 (1-6)
Completed planned course of therapy	76%	96%
Asparaginase Enzyme Activity** (% > 100 IU/L)	100% > 100 IU/L after 48 hrs 100% > 100 IU/L after 72 hrs	98% > 100 IU/L after 14 days
% Hypersensitivity (All)	14%	9%

* Erwinaze package insert, FDA BLA Medical Review; Asparaginase Enzyme Activity level observed in AALL07P2 trial supported initial Erwinase approval
** Asparaginase Enzyme Activity for Erwinaze measured post dose 3 of initial 6 dose course (over 2 weeks)

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Phase 2 Proof of Concept Trial in Metastatic TNBC Ongoing

Dr. Ahmed Awada
Head of the Medical Oncology Clinic at Jules Bordet Cancer Institute Brussels, Belgium

Trybeca-2

Patients (N ≈ 64)

- Locally recurrent or metastatic TNBC
- No BRCA1/2 mutation carriers
- Measurable disease
- ECOG PS 0 or 1

Randomize 1:1

Carboplatin/ gemcitabine plus eryaspase

Carboplatin/ gemcitabine

Primary endpoint

- Objective Response

Key secondary endpoints

- Clinical Benefit Rate
- Progression-free survival
- Disease control rate
- Biomarkers
- PK/PD

Enrollment ongoing in three EU countries; first results anticipated in Q4 2021

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Phase 1 IST in 1L Pancreatic Cancer Initiated in 2020

Investigator Sponsored Trial (IST) at Georgetown Lombardi Cancer Center evaluating combination of eryaspase and modified FOLFIRINOX in approximately18 patients

Primary endpoint

- Safety/MTD

Key secondary endpoints

- Objective response rate
- Progression-free survival
- Overall survival

Dr. Marcus Noel

Georgetown | Lombardi
COMPREHENSIVE CANCER CENTER

Enrolling patients. First cohort enrolled
Determination of maximum tolerated dose anticipated by year end

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FY 2020 Financial Results – P&L

- Net loss for full year 2020 of €73.3 million, up €10.6 million (+17%) year-over-year
  - €4.8 million increase (+7%) in operating loss
  - €5.9 million decrease in financial income
- Of the €4.8 million increase in operating loss:
  - €5.4 million increase in preclinical and clinical development expenses
  - €2.2 million decrease in general and administrative expenses,
  - €1.6 million decrease in income

In thousands of euros	**FY 2020**	**FY 2019**
Revenues	—	—
Other income	3,718	5,283
Operating income	**3,718**	**5,283**
Research and development	(57,580)	(52,193)
General and administrative	(14,970)	(17,164)
Operating expenses	**(72,550)**	**(69,357)**
Operating loss	**(68,832)**	**(64,074)**
Financial income	889	2,947
Financial expenses	(5,354)	(1,533)
Financial income (loss)	**(4,465)**	**1,414**
Income tax	(3)	1
Net loss	**(73,300)**	**(62,659)**

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Update on Financing Initiatives

- June 2020: Financing agreement with Alpha Blue Ocean on convertible notes with share warrants attached
  - Potential for 20 tranches of €3 million each, for up to a maximum of €60 million
  - Subject to the regulatory limit of 20% dilution, unless further authorized
  - 5 tranches called in 2020, all fully converted; 6th tranche called since the beginning of 2021
- September 2020: Implementation of an at-the-market (ATM) program on the Nasdaq Market with Cowen
  - Issuance and Sale of ADSs to eligible investors at prevailing market price
  - Also subject to the same limit of 20% dilution
  - $8 million placement in January 2021 with US investor
- November 2020: €10 million non-dilutive financing in the form of a state-guaranteed loan (PGE loan)
  - Bpifrance and Société Générale each provide a loan of €5 million
  - French government guarantees 90% of the total amounts due

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Key Financials – Cash

- As of December 31, 2020: total cash position of €44.4 million (approximately $54.4 million) compared with €73.2 million on December 31, 2019
- €28.7 million decrease in cash position during the twelve months of 2020, with:
  - Net cash utilization of €53.2 million in Operating and Investing activities
  - Net cash generation in Financing activities of €25.4 million, including:
    - €14.2 million net proceeds under convertible bond financing agreement with Alpha Blue Ocean
    - €10.0 million non-dilutive, state-guaranteed loan from Bpifrance and Société Générale
    - €3.0 million in loan milestone payment from Bpifrance on preclinical R&D
  - $/€ negative currency exchange impact of €1.0 million
- Cash horizon extended into Q1 2022
  - Current cash position can fund planned operating expenses and current programs into Q4 2021
  - Cash horizon could be further extended into Q1 2022 with financing tools established in 2020:
    - Financing agreement on Convertible Notes with Alpha Blue Ocean
    - ATM program established on the Nasdaq Market with Cowen

    Note: Convertible Notes and ATM programs subject to a 20% regulatory dilution limit, unless further authorized

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Key News Flow and Milestones Expected Over the Next 12 Months

- Final results from TRYbeCA-1, Phase-3 trial of eryaspase in 2L PAC (Q4 2021)
- Update on potential path forward for approval of eryaspase in hypersensitive ALL (1H 2021)
- Potential eryaspase BLA filing for ALL (2H 2021)
- First results from TRYbeCA-2, randomized Phase 2 trial of eryaspase in TNBC (Q4 2021)
- Determination of the maximum tolerated dose in rESPECT, Phase 1 1L PAC IST (2H 2021)

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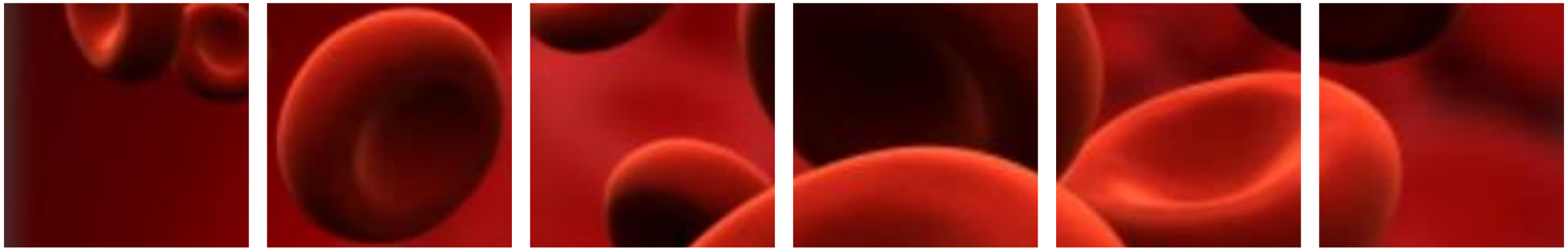

Thank you!

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