Investor presentation

March 2017
Forward looking statements

Certain statements, beliefs and opinions in this presentation are forward-looking, which reflect the Company or, as appropriate, the Company directors’ current expectations and projections about future events. By their nature, forward-looking statements involve a number of risks, uncertainties and assumptions that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements. These risks, uncertainties and assumptions could adversely affect the outcome and financial effects of the plans and events described herein. A multitude of factors including, but not limited to, changes in demand, competition and technology, can cause actual events, performance or results to differ significantly from any anticipated development. Forward looking statements contained in this presentation regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future. As a result, the Company expressly disclaims any obligation or undertaking to release any update or revisions to any forward-looking statements in this presentation as a result of any change in expectations or any change in events, conditions, assumptions or circumstances on which these forward-looking statements are based. Neither the Company nor its advisers or representatives nor any of its parent or subsidiary undertakings or any such person’s officers or employees guarantees that the assumptions underlying such forward-looking statements are free from errors nor does either accept any responsibility for the future accuracy of the forward-looking statements contained in this presentation or the actual occurrence of the forecasted developments. You should not place undue reliance on forward-looking statements, which speak only as of the date of this presentation.
Ablynx

Rapid growth since its foundation in 2001

2001
Foundation

2002
Technology platform

- €5M seed financing
- No products
- No partnerships
- 10 employees

2007
R&D – early stage
- €70M private equity
- €85M IPO (Euronext)
- 11 R&D projects
- 1 Nanobody in the clinic
- 3 partners
- 144 employees

Today
R&D – late stage
- > €370M in equity and debt
- > €400M cash from partners
- > 45 R&D projects
- > 1,500 patients treated
- 8 Nanobodies in the clinic
- 1st Nanobody expected to be launched in 2018
- 8 partners
- ~ 400 employees
- €235M in cash at 31st Dec 2016

Evolving into a commercial stage biotech company
### Broad product pipeline

>45 programmes, 8 Nanobodies in clinical development

<table>
<thead>
<tr>
<th>Product</th>
<th>Indication</th>
<th>Target</th>
<th>Pre-clinical</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>Filing</th>
</tr>
</thead>
<tbody>
<tr>
<td>caplacizumab</td>
<td>aTTP</td>
<td>vWF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vobarilizumab</td>
<td>RA</td>
<td>IL-6R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SLE</td>
<td>IL-6R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALX-0171</td>
<td>RSV</td>
<td>RSV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 17 programmes</td>
<td>Immuno-Oncology</td>
<td>Various</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ozoralizumab</td>
<td>RA</td>
<td>TNFα</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Japan</td>
</tr>
<tr>
<td></td>
<td>RA</td>
<td>TNFα</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Greater China</td>
</tr>
<tr>
<td>ALX-0761/M1095</td>
<td>Psoriasis</td>
<td>IL-17A/IL-17F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI 836880</td>
<td>Oncology</td>
<td>VEGF/Ang2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI 655088</td>
<td>Chronic kidney disease</td>
<td>CX3CR1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>Inflammation</td>
<td>CXCR2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALX-0141</td>
<td>Bone disorders</td>
<td>RANKL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Greater China</td>
</tr>
<tr>
<td>&gt;15 wholly-owned and partnered programmes</td>
<td>Various</td>
<td>Various</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

★ Filing in EU based on Phase II TITAN data
## Four key pillars of value

### First marketed product expected 2018

<table>
<thead>
<tr>
<th>Caplacizumab (anti-vWF)</th>
<th>ALX-0171 (anti-RSV)</th>
<th>Vobarilizumab (anti-IL-6R)</th>
<th>Immuno-oncology</th>
</tr>
</thead>
<tbody>
<tr>
<td>- First-in-class treatment for acquired thrombotic thrombocytopenic purpura</td>
<td>- Potential breakthrough treatment delivered by inhalation for respiratory syncytial virus infections (RSV)</td>
<td>- Novel potential best-in-class treatment for rheumatoid arthritis (RA); also being studied in systemic lupus erythematosus (SLE)</td>
<td>- Up to 17 programmes partnered with Merck &amp; Co in deal worth up to €5.7Bn in milestones plus royalties</td>
</tr>
<tr>
<td>- Acute, life threatening, ultra-rare blood clotting disorder</td>
<td>- RSV can be very serious in infants, the elderly and the immune-compromised</td>
<td>- Partnership with AbbVie</td>
<td>- First <em>in vivo</em> pre-clinical milestone achieved</td>
</tr>
<tr>
<td>- No indicated therapeutic drug currently available</td>
<td>- No approved therapeutic drug currently available</td>
<td>- RA - two successful Phase IIb studies; preparing for regulatory meetings and potential Phase III; exploring new partnership options</td>
<td>- First clinical studies planned for 2017</td>
</tr>
<tr>
<td>- Filed for approval in Europe in H1 2017</td>
<td>- Phase IIb topline results expected in H2 2018</td>
<td>- SLE – Phase II topline results expected in H1 2018</td>
<td>- Up to 9 clinical studies expected to start over next three years</td>
</tr>
<tr>
<td>- Wholly-owned; potentially Ablynx’s first marketed product in 2018</td>
<td>- Multi-billion $ market</td>
<td>- Large, multi-billion $ markets</td>
<td>- Market expected to grow to &gt;$43bn by 2020</td>
</tr>
<tr>
<td>- Self-commercialisation strategy being executed</td>
<td>- Wholly-owned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Peak sales potential of &gt; €400M</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Key events in 2016

Significant progress across the entire business

**Study results**

| ALX-0171 (anti-RSV): excellent safety and encouraging efficacy in Phase I/IIa study (53 hospitalised infants with a RSV infection) |
| **Vobarilizumab (anti-IL-6R):** excellent safety and superior efficacy versus tocilizumab in Phase IIb RA monotherapy study (251 RA patients) |
| **Vobarilizumab (anti-IL-6R):** excellent safety and efficacy in Phase IIb RA combination (+MTX) study (345 RA patients) |

**Pipeline development**

| Bi-specific anti-VEGF/Ang2: Phase I start by BI - €8M milestone |
| **Anti-CX3CR1** (GPCR): Phase I start by BI - €8M milestone |
| **Anti-CXCR2** (GPCR): Phase I start by Novartis |
| **Caplacizumab (anti-vWF):** start of 3-year follow-up study for patients completing the Phase III HERCULES study |
| **Vobarilizumab (anti-IL-6R):** Completed recruitment of 300 patients in Phase II SLE study |
| **Caplacizumab (anti-vWF):** >100 patients already recruited in Phase III HERCULES study |

**Corporate**

| **Caplacizumab (anti-vWF):** publication of Phase II data from TITAN study in the NEJM |
| **Caplacizumab (anti-vWF):** announced commitment to self-commercialize in North America and Europe |
| **Financing:** successfully raised €74M through oversubscribed private placement of new shares |
| **Merck & Co., Inc.:** extension (for the 2nd time) of ion channel collaboration - €1M payment |
| **Novo Nordisk:** discovery milestone with multi-specific Nanobody - €1M milestone |
| **AbbVie:** declined to opt-in and license vobarilizumab in RA |

3 successful studies in a total of ~650 patients

4 clinical trial starts, 3 of which were with partners

Important corporate developments
Ablynx

Diversified shareholder base – January 2017

• Ordinary shares listed on Euronext Brussels (ABLX)
• Sponsored Level I ADRs on the US OTC market (ABYLY)
• 61.1M shares outstanding
• 2.5M outstanding warrants (in number of shares)
Nanobodies

Derived from heavy-chain only antibodies

- *Camelid* heavy-chain only antibodies are stable and fully functional
- Nanobodies represent the next generation of antibody-derived biologics

![Diagram showing comparison between Conventional antibodies and Heavy chain only antibodies.](image)

**Ablynx’s Nanobody**
- small and robust
- easily linked together
- sequence homology comparable to humanised/human mAbs
- nano- to picomolar affinities
- able to bind and block challenging targets
- multiple administration routes
- manufactured in microbial cells
Ablynx’s Nanobody drug discovery engine

Rapid generation of novel biologics

- Immunise llamas with antigen
- and/or Use proprietary synthetic Nanobody phage libraries
- Wide range of highly diverse Nanobodies with 0.1-10nM affinities
- Formatted Nanobodies
- Cloned into microbial systems and produced through fermentation

~12-18 months
Ablynx’s Nanobodies

Platform advantages

Mix and match
Multi-specific/multivalent Nanobodies that address multiple targets in a single drug molecule – flexible GS linker lengths

Multiple delivery routes
- Inhalation
- Ocular
- Oral-to-topical

Manufacturing
High-yield, high-concentration, low-viscosity, microbial production

Able to bind and block challenging targets
Nanobodies against ion channels and GPCRs

Customised half-life extension
- Albumin-binding Nanobody
- Fc

Hours/days/weeks
Key value drivers
**Ablynx**

**SOTP valuation – analyst average**

- Average target price: €15/share
- Average target equity value: €880M*
- Average value per programme:

*Current number of outstanding shares: 60.9M*
Caplacizumab (anti-vWF) – wholly-owned

Potential first-in-class treatment of acquired thrombotic thrombocytopenic purpura (aTTP)
Caplacizumab – anti-vWF Nanobody
First-in-class potential for the treatment of aTTP

- Total annual market potential ~€800M\(^1\)
- Feb 2017: filed in Europe for approval
- Phase III HERCULES topline results in H2 2017
- Phase I results in Japanese subjects in H2 2017
- 2018: anticipated first launch in Europe and BLA submission in USA
- 2019: anticipated launch in USA
- Forecast peak sales of >€400M\(^1\)
- Ablynx to lead commercialisation in USA, Canada and Europe
- Orphan Drug Status (EU/USA) – IP protection to 2035

\(^{1}\) USA, Canada, EU and Japan
Caplacizumab unique mode of action

Rapidly stops formation of microclots

**Inhibitory autoantibodies**

ADAMTS13 activity is impaired

Ultra-Large (UL) vWF multimers
don the endothelium

Ex vivo assay for platelet string formation
Fluorescence microscopy image of platelets adhering to UL-vWF in plasma of an aTTP patient

Without treatment, fluorescently labelled platelets adhere to UL-vWF, observed as string-like structures

Caplacizumab inhibits the formation of platelet strings and potentially the associated microvascular thrombi in many organs

Caplacizumab blocks the platelet – ULvWF interaction

Caplacizumab binds to A1 domain of vWF and thereby inhibits platelet string formation

UL-vWF multimers cause platelet string formation

Caplacizumab inhibits the platelet–ULvWF interaction

ADAMTS13 activity is impaired

Endothelium
Acquired TTP

Acute, life-threatening, ultra-rare blood clotting disorder

• aTTP is an acute disease leading to extensive morbidity and mortality
  – causes extensive microclot formation in small blood vessels throughout the body
  – leads to tissue ischemia, organ dysfunction, and major thromboembolic events (stroke, myocardial infarction, thrombosis)
  – up to 20% mortality rate in the acute phase\(^1\) and ~36% of patients suffer from further disease recurrences\(^2\)

• We estimate a total of ~7,500 patients present p.a. in North America, Europe and Japan

• High unmet medical need with no approved therapeutic drug currently available

\(^1\) Allford et al, BJH 2003, Kremer Hovinga, Blood 2010; Benhamou, Haematologica 2012; \(^2\) George et al, EJH 2008
There is a high unmet need for a novel treatment option that would result in:

- faster resolution of the acute episode of aTTP and related resulting organ damage
- reduction in risk of mortality and thromboembolic events
- prevention of recurrences while on treatment
- reduction in risk of refractoriness to treatment
- reduction in dependency on PEX
Caplacizumab
Addressing the unmet need in aTTP

TITAN Phase II study of caplacizumab

• 39% reduction in time to platelet normalisation
• 71% fewer patients with recurrences during treatment

Post-hoc analysis

• 74% reduction in the frequency of major thromboembolic events (11% vs 43%)
• dramatic reduction in refractoriness to treatment (6% vs 22%)

Caplacizumab is expected to become a key component of the new standard-of-care

1 Publication in The NEJM – 11 February 2016
2 Oral presentation ECTH conference – September 2016
Caplacizumab Phase II TITAN data

Post-hoc analysis of TTP related clinically relevant adverse events

- Post-hoc analysis of data from the TITAN study\(^1\)
- TTP related clinically relevant adverse events during study drug treatment

<table>
<thead>
<tr>
<th>Event</th>
<th>Caplacizumab (N=35)</th>
<th>Placebo (N=37)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Subjects</td>
<td>% of subjects</td>
</tr>
<tr>
<td><strong>Embolic and thrombotic events (SMQ)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute myocardial infarction</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Deep vein thrombosis</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Venous thrombosis</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td>1</td>
<td>(2.9%)</td>
</tr>
<tr>
<td>Ischemic stroke</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hemorrhagic stroke</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Thrombotic thrombocytopenic purpura(^1)</td>
<td>3 (^2)</td>
<td>(8.6%)</td>
</tr>
<tr>
<td><strong>TTP-related mortality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths related to TTP</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4 (^3)</td>
<td>(11.4%)</td>
</tr>
</tbody>
</table>

\(^1\) This preferred term consisted of recurrences of TTP during the treatment period, defined in the protocol as exacerbations of TTP

\(^2\) One adverse event reported as ‘Thrombocytopenia’ was not considered in this analysis, as this event was reported as part of the presenting disease

\(^3\) A subject may have experienced more than one event:
- ischemic and hemorrhagic stroke occurred in the same subject;
- AMI and exacerbation occurred in the same subject;
- pulmonary embolism and 2 exacerbations occurred in the same subject;
- venous thrombosis and exacerbation occurred in the same subject

\(^1\) Oral presentation ECTH conference – September 2016
Caplacizumab Phase II TITAN data

Post-hoc analysis on refractoriness to treatment

- Data published in a “letter to the editor” in the NEJM, issue 23 June 2016

<table>
<thead>
<tr>
<th>Refractoriness to treatment, n (%)</th>
<th>Caplacizumab N=35</th>
<th>Placebo N=37</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure of platelet response after 7 days despite daily PEX treatment¹</td>
<td>2 (5.7)</td>
<td>8 (21.6)*</td>
</tr>
<tr>
<td>Absence of platelet count doubling after 4 days of standard treatment, and LDH&gt;ULN²</td>
<td>0 (0)</td>
<td>4 (10.8)</td>
</tr>
</tbody>
</table>

* 2 patients in the placebo group who discontinued the study prematurely (before 7 days) without reaching the platelet count criteria (i.e. platelet count <150×10⁹/l) were counted as refractory to treatment

---

HERCULES Phase III and follow-up study

Phase III topline results expected in H2 2017

**Primary endpoint:** time to confirmed normalisation of platelet count

**Secondary endpoints:** composite efficacy endpoint; recurrence of TTP during the study period; refractory TTP; time to normalization of organ damage markers

- HERCULES study will be used to support European filing and BLA submission in the USA
- HERCULES recruitment proceeding very well and expected to be completed in H1 2017
Commercialising caplacizumab for aTTP

Potentially Ablynx’s first marketed product

Strategic opportunity to self-commercialise in USA, Canada and Europe

Market opportunity

- Concentrated patient presentation
- Established KOL network and reference centres
- Modest commercial infrastructure requirements
- Contract sales, distributors and/or commercial partners in other territories

- High unmet medical need
- Strong product profile with compelling clinical data
- No direct competition in aTTP
- Orphan Drug status with patent protection to 2035
- Peak sales potential in aTTP of >€400M

Planned launch in 2018
# Caplacizumab

## Key potential milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>HERCULES</th>
<th>HERCULES 3-year follow-up study</th>
<th>Regulatory</th>
<th>Japan</th>
<th>Reperfusion injury (stroke)</th>
<th>Commercial operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td>MAA submission</td>
<td></td>
<td>start clinical development</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conditional MA</td>
<td></td>
<td>pre-clinical POC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full MA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BLA submission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BLA approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MAA**: marketing authorization application; **BLA**: biologic license application; **MSL**: medical science liaison; **KAM**: key account manager; **CM**: case manager
Inhaled ALX-0171 (anti-RSV) – wholly-owned

Potential first-in-class treatment for RSV infections
ALX-0171 – inhaled anti-RSV Nanobody

Potential breakthrough for the treatment of RSV infections

- Multi-billion dollar market
- Administered by inhalation
- Infants – important pre-clinical and clinical milestones achieved; started Phase IIb study (Jan 2017); preparations underway to start clinical development in Japan (H2 2017)
- Adults – preparations underway to start clinical development of ALX-0171 in haematopoietic stem cell transplant (HSCT) patients in 2017
- Patent protection to 2035
RSV infections – vulnerable populations

High unmet medical need and no approved therapeutic

**INFANTS**
- out-patient and hospitalized settings

- 33.8 million episodes globally p.a.¹
- 3.4 million hospital admissions globally p.a.¹
- 66,000-199,000 deaths globally p.a.¹
- Long-term disease burden ²,³

**ELDERLY**
- out-patient and hospitalized settings

- Serious health risk for elderly ⁴
- Infection rates up to 10% p.a. with up to 20% hospitalised and 2-8% deaths p.a.
- US: 177,000 hospital admissions and 14,000 deaths p.a.
- High disease burden in nursing homes

**IMMUNOCOMPROMISED**
- hospitalized HSCT patients

- 50,000 haematopoietic stem cell transplant (HSCT) procedures globally p.a.⁵
- 30-40% of patients with RSV progress to lower respiratory tract infection (LRTI) and pneumonia ⁶
- mortality rates of up to 30% in RSV-infected HSCT patients with LRTI and pneumonia

---

# Anti-RSV Nanobody – ALX-0171

Incorporating unique Nanobody platform advantages

<table>
<thead>
<tr>
<th>Platform advantage</th>
<th>Product features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multivalent formatting</td>
<td>• 3 Nanobodies linked together that bind to the F-protein of RSV</td>
</tr>
<tr>
<td></td>
<td>• 7,000 fold increase in potency over monovalent construct</td>
</tr>
<tr>
<td></td>
<td>• 10,000 fold reduction in viral titres <em>in vitro</em></td>
</tr>
<tr>
<td></td>
<td>• Neutralises 87% of a broad range of clinical RSV isolates</td>
</tr>
<tr>
<td>Delivery via inhalation</td>
<td>• Biological activity maintained after nebulisation</td>
</tr>
<tr>
<td></td>
<td>• Delivered directly to the site of infection</td>
</tr>
<tr>
<td></td>
<td>• Very encouraging efficacy in neonatal lamb model for infant RSV infection</td>
</tr>
<tr>
<td></td>
<td>• Safe and well-tolerated in healthy adults and adults with hyperreactive airways</td>
</tr>
<tr>
<td></td>
<td>• Well tolerated in hospitalised RSV infected infants</td>
</tr>
</tbody>
</table>
Inhaled ALX-0171

Successfully completed Phase I/IIa study in 53 infants with a RSV infection

- Recruitment from Q4 2014 to Q1 2016
- Study centres in Europe and Asia-Pacific region
- Adapted infant inhalation device (vibrating mesh)
- Inhaled ALX-0171 administered once/day, for 3 consecutive days

**Primary endpoint:**
Safety and tolerability of ALX-0171

**Secondary endpoints:**
Assessment of clinical effect (feeding, respiratory rate, $O_2$ saturation, wheezing, coughing, general appearance), PD, PK and immunogenicity
First-in-infant Phase I/IIa study

Safety and tolerability

<table>
<thead>
<tr>
<th></th>
<th>Open-label group ALX-0171 (N=5)</th>
<th>Randomised group ALX-0171 (N=30)</th>
<th>Randomised group Placebo (N=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adverse events (AEs)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- number (%) of subjects with an AE</td>
<td>4 (80.0)</td>
<td>9 (30.0)</td>
<td>4 (25.0)</td>
</tr>
<tr>
<td>- number (%) of subjects with a treatment-related AE</td>
<td>1 (20.0)</td>
<td>2 (6.7)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td><strong>Serious adverse events (SAEs)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- number (%) of subjects with an SAE</td>
<td>3* (60.0)</td>
<td>1** (3.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>- number (%) of subjects with treatment-related SAEs</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
</tbody>
</table>

* 1 of whom discontinued  ** subject discontinued

- Most common AEs were infections and respiratory disorders
- 3 AEs related to ALX-0171: mild cough, mild rhinorrhoea, mild fever 11 days after last dose
- 5 SAEs reported: hypo-responsiveness, hypotonia, pneumonia (2) and atelectasis

Excellent safety and tolerability profile confirmed in the target population
First-in-infant Phase I/IIa study

Key secondary objectives

- Treatment with inhaled ALX-0171 had an immediate and significant impact on viral replication
- Encouraging initial indication of therapeutic effect was demonstrated

“median time to undetectable virus was >24 hours quicker with ALX-0171”
nominal p-value=0.014

“difference in effect on clinical score is statistically significant”
nominal p-value=0.0092

* Overall disease severity assessment including feeding intolerance, medical intervention, respiratory difficulty, respiratory frequency, apnoea, general condition and fever
Inhaled ALX-0171

Phase IIb RESPIRE clinical efficacy study in 180 hospitalized infants

- Study start: Q1 2017; expected results: H2 2018
- Study centres in Europe, Asia-Pacific and the USA
- Adapted infant inhalation device (vibrating mesh)
- Infants: 28 days to <2 years of age
- Inhaled ALX-0171 (3 doses) administered once/day, for 3 consecutive days

Primary endpoint:
Anti-viral effect

Secondary endpoints:
Assessment of clinical effect over time (feeding, respiratory rate, O₂ saturation, wheezing, coughing, general appearance), time to clinical response, effect on composite clinical scores, PD, PK and immunogenicity; safety
Key potential near term milestones

Phase IIb - ongoing
180 RSV-infected infants, 3 doses, Primary endpoint: anti-viral effect

2017

2018

Phase IIa
RSV-infected haematopoietic stem cell transplant (HSCT) patients

start clinical development

Japan
RSV-infected infants

start clinical development

topline results
Vobarilizumab (anti-IL-6R) – partnering opportunities being explored

Novel potential best-in-class treatment for RA
Vobarilizumab – anti-IL-6R Nanobody

Novel potential best-in-class treatment for RA

- RA – excellent results from 2 Phase IIb RA studies in a total of ~600 patients; open-label extension study ongoing
- AbbVie declined to opt-in for RA and Ablynx now preparing for regulatory meetings and exploring potential new partnerships
- SLE – Phase II study ongoing (312 patients) with results expected in H1 2018
- Opportunity in multi-billion dollar markets

RA: rheumatoid arthritis
SLE: systemic lupus erythematosus
# Vobarilizumab (225mg every 2 weeks)

**Excellent Phase IIb study results reported in July/August 2016**

<table>
<thead>
<tr>
<th>Combination therapy (+MTX) 24 weeks (across studies)</th>
<th>DAS28_{CRP} remission</th>
<th>ACR 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>vobarilizumab</td>
<td>49%</td>
<td>43%</td>
</tr>
<tr>
<td>tocilizumab</td>
<td>32%</td>
<td>20%</td>
</tr>
<tr>
<td>adalimumumab</td>
<td>23%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monotherapy 12 weeks (head-to-head study)</th>
<th>DAS28_{CRP} remission</th>
<th>ACR 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>vobarilizumab (6 doses)</td>
<td>41%</td>
<td>21%</td>
</tr>
<tr>
<td>tocilizumab (~ 12 doses) open-label</td>
<td>27%</td>
<td>23%</td>
</tr>
</tbody>
</table>

tocilizumab: BREVACTA PhIII (sc) 162mg Q2W + MTX (Kivitz et al., Arthritis Care & Research, Nov 2014); note: remission is based on ESR (no CRP data available)
adalimumab: Weinblatt *et al*, Arthritis & Rheumatology, Sept 2015 (Phase IIb head-to-head adalimumab 40mg Q2W + MTX vs clazakizumab + MTX)
**Vobarilizumab + MTX (placebo-adjusted)**

Impressive efficacy* compared with other leading commercial biologicals

---

**Placebo-adjusted DAS$_{28,ESR}$ remission**

- Vobarilizumab $^{1}$ 225mg, Q2W
- Tocilizumab 162mg, Q2W (Roche)$^{2}$
- Adalimumab 40mg, Q2W (AbbVie)$^{3}$

- 43% better than tocilizumab
- 233% better than adalimumab

---

**Placebo-adjusted ACR70 response**

- Vobarilizumab $^{1}$ 225mg, Q2W
- Tocilizumab 162mg, Q2W (Roche)$^{2}$
- Adalimumab 40mg, Q2W (AbbVie)$^{3}$

- 73% better than tocilizumab
- 116% better than adalimumab

---

* 24-week data from similar RA combination therapy studies reported in listed publications, not resulting from head-to-head studies

---

1 Phase IIb + MTX (August 2016); 2 BREVACTA Phase III + MTX (Kivitz et al., Arthritis Care & Research, Nov 2014) 3 Phase IIb (Weinblatt et al., Arthritis & Rheumatology, Sept 2015) (note: remission based on CRP, no data on ESR available)
Vobarilizumab (Q2W) as monotherapy

Impressive efficacy* after 12 weeks vs anti-IL-6R drugs in development after 24 weeks

* data from RA most recent monotherapy studies reported in November 2016; not resulting from head-to-head studies

Vobarilizumab (Q2W) + MTX (placebo-adjusted)

Impressive efficacy* vs anti-IL-6R drugs in development (week 24)

Placebo-adjusted DAS28\textsubscript{CRP} remission

- up to 83% better than sarilumab
- up to 65% better than sirukumab

% of patients

* data from most recent RA combination therapy studies reported in November 2016; not resulting from head-to-head studies

Vobarilizumab + MTX (placebo-adjusted)

Impressive efficacy compared to oral anti-RA drugs in development*

* Data from similar studies reported in listed publications, not resulting from head-to-head studies

1 Phase IIb + MTX at week 12 and 24 (August 2016; LOCF imputation); 2 Phase IIb + MTX at week 12 (EULAR 2016) 3 Phase IIb + MTX (LOCF imputation) at week 12 and 24 (April 2015; July 2015)
Vobarilizumab + MTX

Favourable safety and immunogenicity profile

<table>
<thead>
<tr>
<th></th>
<th>% pts with ≥ 1 SAEs</th>
<th>% pts with grade 3 toxicity for neutrophils</th>
</tr>
</thead>
<tbody>
<tr>
<td>vobarilizumab, 225mg Q2W¹</td>
<td>1.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>tocilizumab, 162mg Q2W²</td>
<td>4.6%</td>
<td>3.5%</td>
</tr>
<tr>
<td>adalimumab, 40mg Q2W³</td>
<td>5.1%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

• Anti-vobarilizumab antibodies
  - develop in up to 31% of patients
  - BUT have no effect on PK, efficacy or safety

• Anti-adalimumab antibodies⁴
  - develop in ~30% of patients
  - AND are associated with loss of efficacy and an increased risk of adverse events
  - 1/3rd of patients become resistant to adalimumab as a result of ADAs (with a strong signal occurring early in the treatment cycle)

A Nanobody class advantage

¹ Phase IIb RA study + MTX, Ablynx August 2016; ² Kivitz et al., 2014, Arthr. Care & Res., 66, 1653-61; ³ Weinblatt et al., Arthritis Rheumatol., 67, 2591-600
Vobarilizumab

Novel best-in-class drug candidate for the treatment of RA

- Rapid, strong and sustained effect on signs and symptoms of disease
- As a monotherapy, >50% more patients in clinical remission as compared to tocilizumab
- Powerful effect as a combination therapy on the most stringent efficacy parameters compared to leading commercial biologicals and oral anti-RA drugs in development
- Potential for effective monthly administration
- Class advantage of vobarilizumab vs antibodies demonstrated: anti-Nanobody antibodies had no effect on PK, efficacy or safety
- Very encouraging safety profile compared to other biological anti-RA drugs

Ablynx is now preparing for end-of-Phase II meetings with regulators whilst exploring partnering opportunities
# Vobarilizumab

## Key potential near term milestones

<table>
<thead>
<tr>
<th>RA</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory consultations</td>
<td></td>
<td>FDA and EMA</td>
</tr>
<tr>
<td>Phase III – depending on partnering support</td>
<td></td>
<td>start clinical development</td>
</tr>
<tr>
<td>Open-label extension study</td>
<td></td>
<td>topline results</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SLE</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase II</td>
<td></td>
<td>topline results</td>
</tr>
</tbody>
</table>

opt-in decision for SLE
Immuno-oncology

Major collaboration with Merck & Co, Inc. and wholly-owned programmes
Immuno-oncology

Changing the cancer treatment paradigm

Huge market potential

- Market expected to grow to >$43bn by 2020*
- I/O drugs expected to treat 60% of cancers*
- Proven substantial survival impact

Multiple targets

- Increasing number of targets
- Combination therapies are the future

Multi-specific Nanobodies - the next wave!

- Bind multiple targets (2, 3, 4 or 5) with one Nanobody molecule
- Potential to increase efficacy and avoid escape mechanisms
- Technology allows rapid exploration of combinations
- Manufacturing simplicity and cost-effectiveness

*BofA Merrill Lynch July 2015

Nature Reviews - 2012
Immuno-oncology

Multi-specific Nanobodies versus combination mAbs

More difficult for mAbs to bind to different targets simultaneously

One tri-specific Nanobody is 4x smaller than a mAb

Multi-specific Nanobodies may block multiple targets simultaneously
Immuno-oncology (IO)

Up to 17 programmes with Merck & Co., Inc.

- ~80% of total R&D budget* invested in IO
- First IO drug, Keytruda®, approved in 2014
- Sales of Keytruda® estimated to reach $6Bn by 2020**
- >160 clinical studies for Keytruda® in >30 tumor types

Merck

leader in the field

Merck + Ablynx

major IO collaboration

- Started Feb ‘14; expanded in July ‘15
- Up to 17 fully-funded programmes, targeting multiple immune-checkpoint modulators
- €33M upfront payment received
- Up to €5.7Bn in potential future milestones plus royalties

First in vivo pre-clinical milestone (€3.5M) achieved and first clinical studies planned to start in 2017

*Bryan Garnier Oct 2015  **Leerink August 2015
## Immuno-oncology programmes with Merck

### Key potential milestones

<table>
<thead>
<tr>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <em>In vivo</em> POC for up to 6 programmes</td>
<td>• <em>In vivo</em> POC for up to 6 programmes</td>
<td>• Start pre-IND studies for up to 6 programmes</td>
</tr>
<tr>
<td>• Start pre-IND studies for up to 2 programmes</td>
<td>• Start pre-IND studies for up to 2 programmes</td>
<td>• Start clinical development for up to 5 programmes</td>
</tr>
<tr>
<td>• First Nanobody to enter clinical trials</td>
<td>• Start clinical development for up to 2 programmes</td>
<td></td>
</tr>
</tbody>
</table>

**Up to 9 clinical starts in the next three years**
2017 outlook
2017 outlook

Focus on sustainable value creation

<table>
<thead>
<tr>
<th>Corporate</th>
<th>Pipeline</th>
<th>Potential study results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Filing for approval of caplacizumab in Europe ✓</td>
<td>• Continue recruitment in the Phase IIb RSV study with ALX-0171 in 180 hospitalised infants</td>
<td>• HERCULES Phase III results for caplacizumab in H2</td>
</tr>
<tr>
<td>• Further develop commercial organisation in preparation for caplacizumab launch</td>
<td>• Complete Phase II study in ~300 SLE patients with vobarilizumab</td>
<td>• Phase Ib results for ALX-0761/M1095 (anti-IL17A/F) in psoriasis with Merck KGaA in H1</td>
</tr>
<tr>
<td>• End-of-Phase II meetings for vobarilizumab</td>
<td>• Start clinical development for Japan with both caplacizumab and ALX-0171</td>
<td>• Phase Ib results for anti-VEGF-Ang2 with BI in H2</td>
</tr>
<tr>
<td>• Explore partnering opportunities for vobarilizumab in RA</td>
<td>• Start pre-clinical and clinical development in new indications for caplacizumab and ALX-0171 respectively</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Start clinical development for at least 2 partnered programmes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Start Phase III RA study for vobarilizumab (depending on partnering discussions)</td>
<td></td>
</tr>
</tbody>
</table>
Questions

CONTACT DETAILS
Investor Relations +32 9 262 00 00 investors@ablynx.com www.ablynx.com