Caplacizumab

Wholly-owned anti-vWF Nanobody

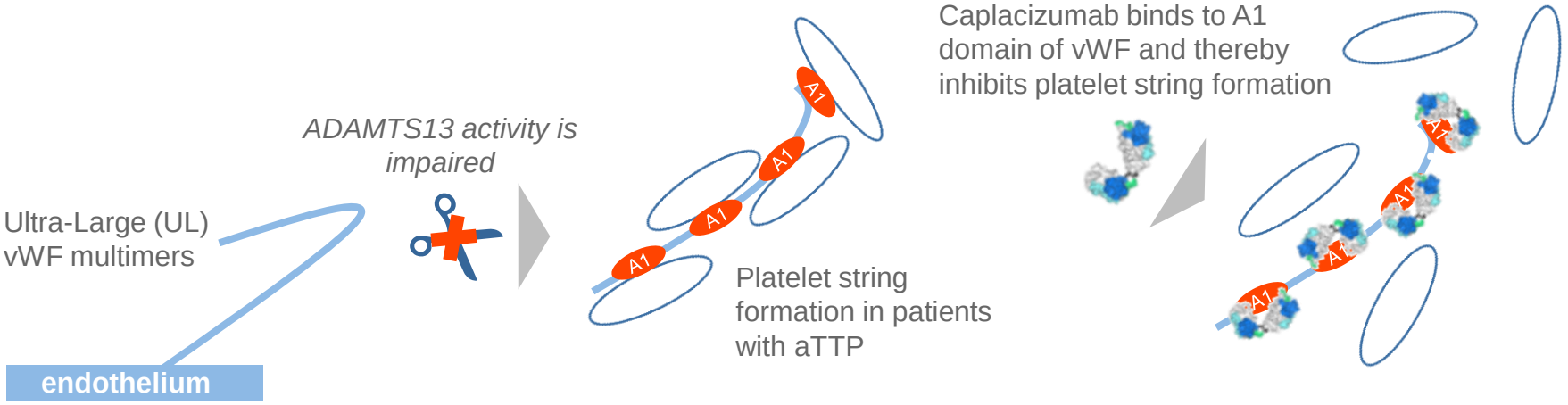
- First-in-class bivalent Nanobody with Orphan Drug Status and patent protection up to 2035
- Developed for the treatment of acquired thrombotic thrombocytopenic purpura (aTTP)
- Phase II (75 patients) successfully completed; Phase III (92 patients) on-going with results expected by end of 2017
- Planned filing for conditional approval in Europe (H1 2017) and BLA submission in USA (2018)
- Ablynx to lead commercialisation in Europe and USA
- Anticipated first launch in 2018
- Peak sales potential of ~€300M[1]

[1] US, EU, Japan, other major markets

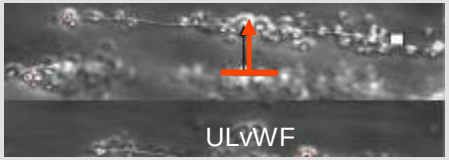
Caplacizumab unique mode of action

Rapidly stops formation of micro-clots

Caplacizumab blocks the platelet – ULvWF interaction



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

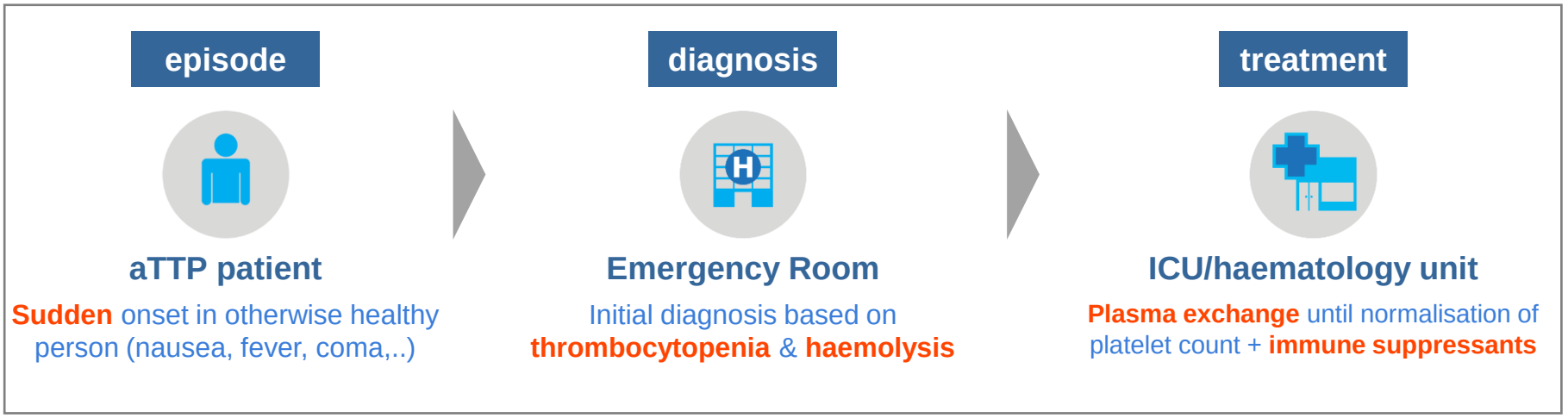


Without treatment, fluorescently labelled platelets adhere to UL-vWF, observed as string-like structures

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

Acquired TTP (aTTP)

Life-threatening ultra-rare acute blood clotting disorder

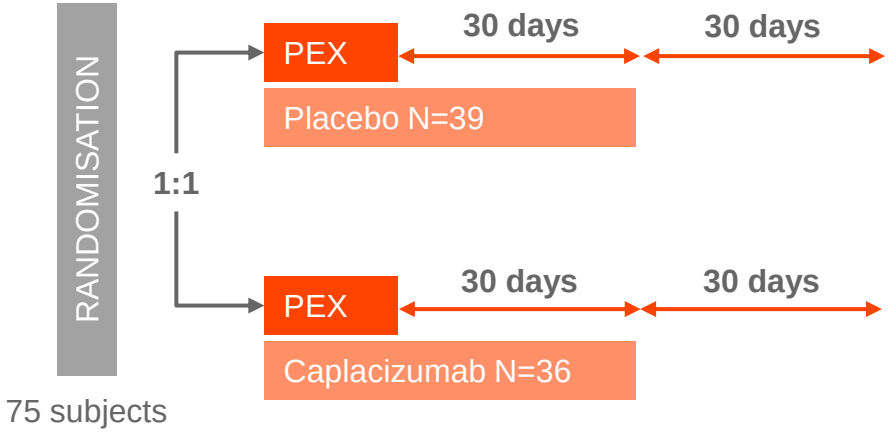


- aTTP is caused by impaired activity of ADAMTS13 (<10% of that in normal plasma[1])
  - extensive micro-clot formation in small blood vessels throughout the body
  - leads to tissue ischemia and damage to vital organs
- Ultra-rare indication with incidence estimated at up to 11 per million[2]
- High unmet medical need with no approved therapeutic drug currently available
  - high acute mortality (10-20%)[3], vast majority within 2 weeks post diagnosis, and ~ 36% of patients with recurrences[2]
  - major morbidities, including brain (e.g. stroke), heart and kidney damage
  - impacts life expectancy and quality of life

[1] Scully et al, BJH 2012; [2] George et al, EJH 2008; [3] Allford et al, BJH 2003, Kremer Hovinga, Blood 2010; Benhamou, Haematologica 2012

Caplacizumab (anti-vWF) proven clinical benefit

TITAN Phase II study – achieved clinical proof-of-concept



Primary endpoint:
time to confirmed normalisation of platelet count

Secondary endpoints:
recurrences; PEX parameters; mortality; major clinical events

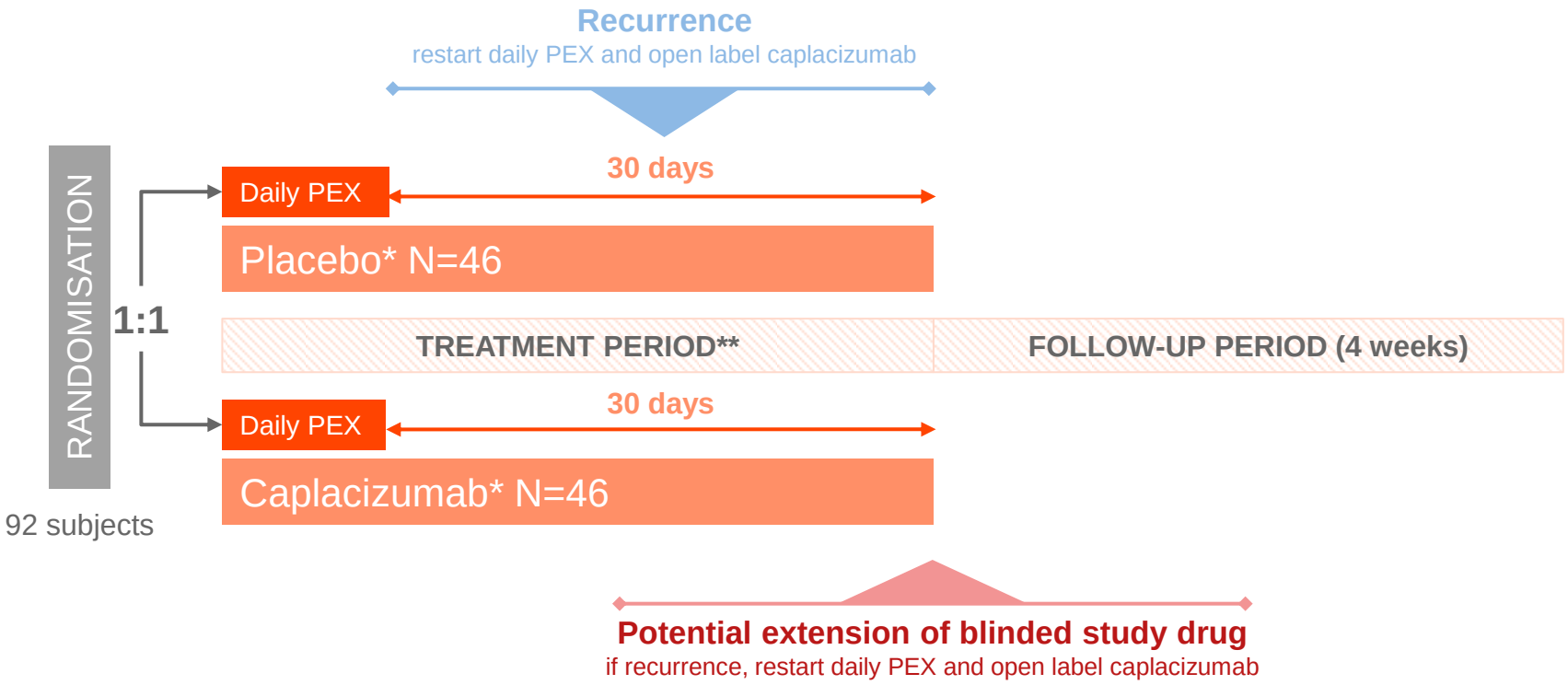
- Primary endpoint met with high statistical significance (p=0.005)
  - 40% reduction in time to platelet normalisation

    = faster reversion of thrombocytopenia and reduced use of plasma exchange (PEX)
- 71% fewer patients with recurrences during caplacizumab treatment
  - potential prevention of organ damage

PEX = plasma exchange

Caplacizumab (anti-vWF)

Hercules Phase III study (Q3 2015 to Q4 2017)



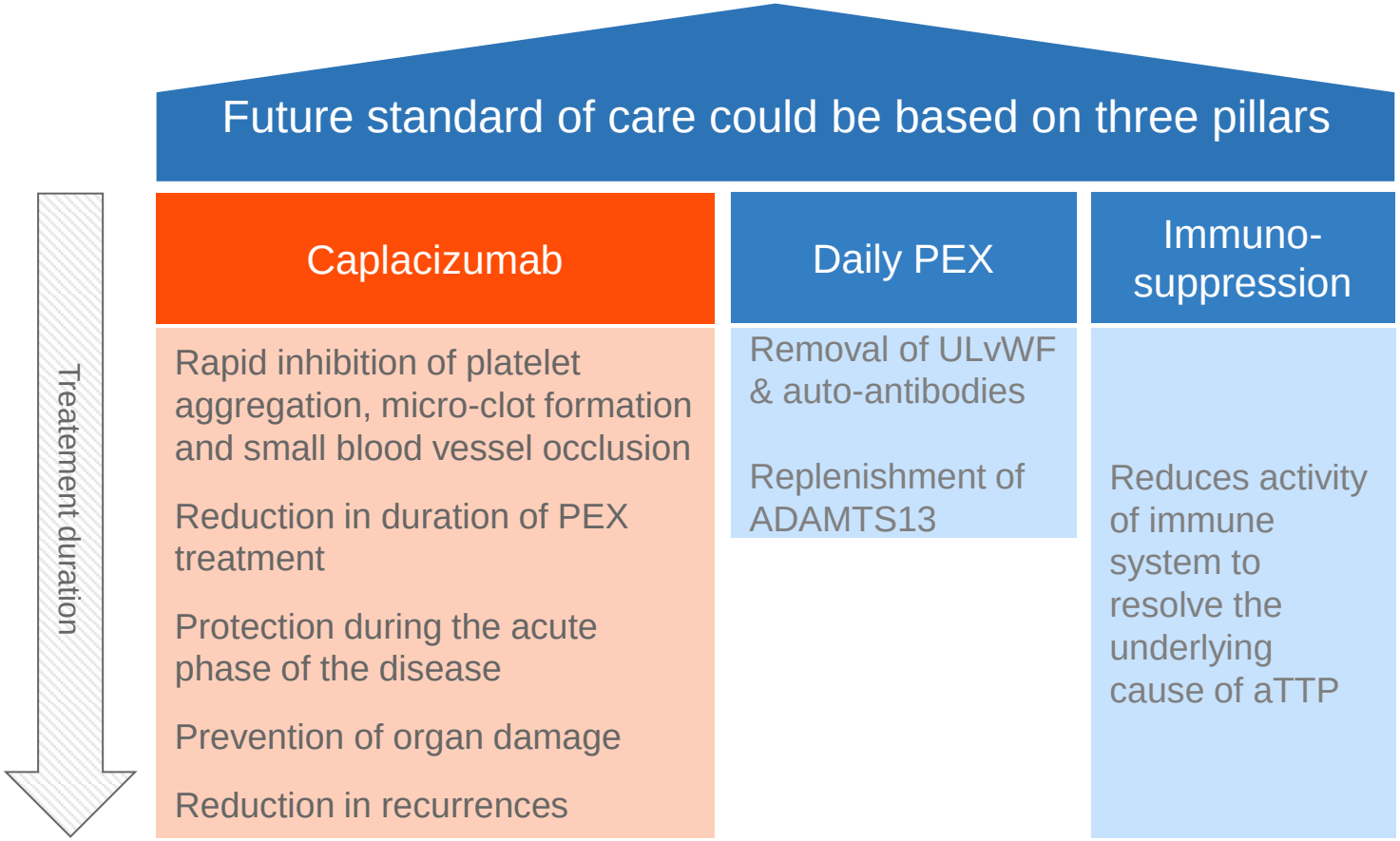
Primary endpoint: time to confirmed normalisation of platelet count

Secondary endpoints: recurrences; mortality rate; severe morbidity; organ damage biomarkers (troponin, creatinine, LDH); PEX parameters; days in ICU/hospital; AEs; PD; PK; immunogenicity

* *iv bolus (10mg) followed by daily sc (10mg)* ** *incl. corticosteroids at start of daily PEX until underlying disease activity resolved*
PEX = plasma exchange

Caplacizumab positioning

Potential new component in standard of care for aTTP



Caplacizumab may become the first approved product for the treatment of aTTP

Caplacizumab (anti-vWF)

Potentially Ablynx's first marketed product

Strategic opportunity

- Concentrated patient presentation
- Established KOL network and reference centres
- Modest commercial infrastructure requirements
- Retain direct control over commercialisation in EU5 and USA
- Contract sales, distributors and/or commercial partners in other territories

Market potential

- No direct competition in aTTP
- Potential key component in future standard of care
- Orphan Drug status with patent protection to 2035
- Peak sales potential in aTTP of ~€300M

Potential launch in 2018