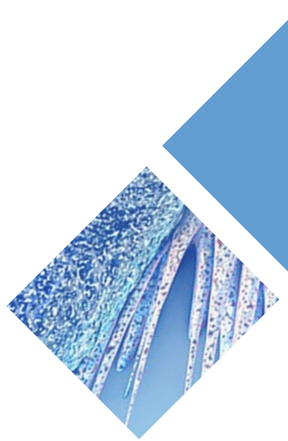
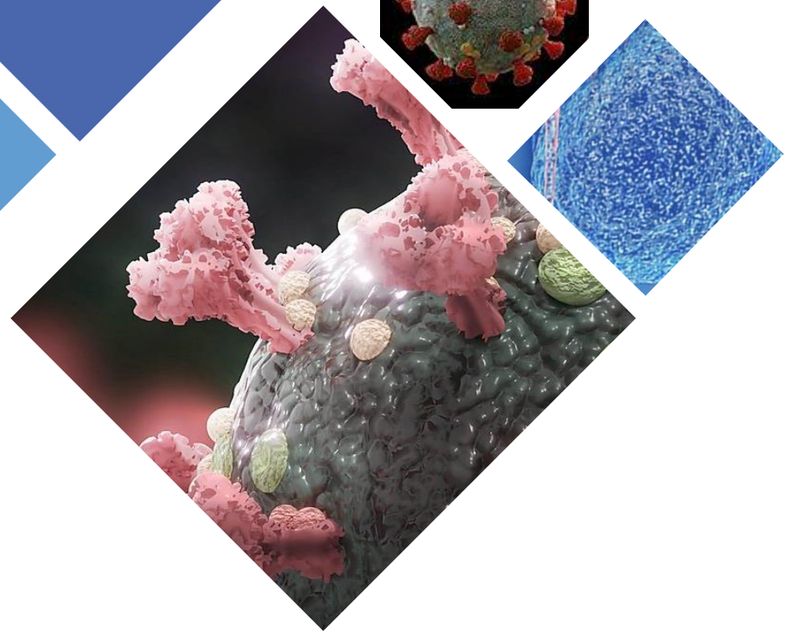
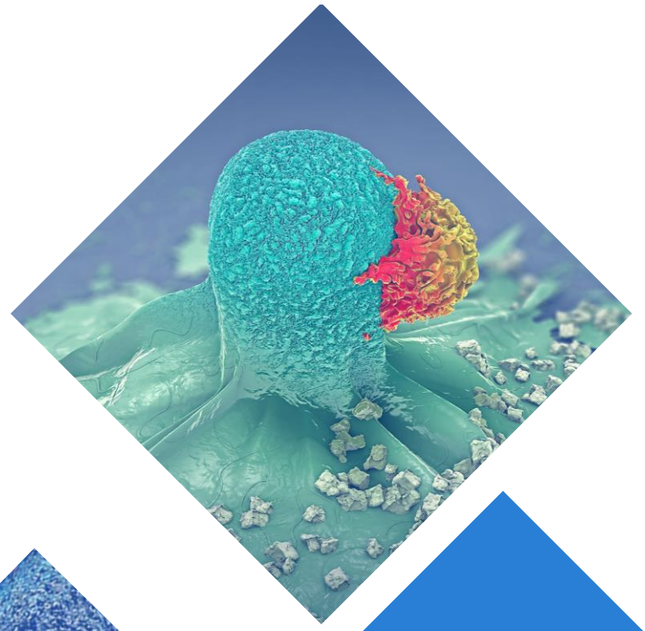
Humanigen

November 2020







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Cautionary Note Regarding Forward-Looking Statements

All statements other than statements of historical facts contained in this presentation, including information concerning the offering, our possible or assumed future results of operations and expenses, business strategies and plans, competitive position, business and industry environment and potential growth opportunities, are forward-looking statements. Forward-looking statements reflect management's current knowledge, assumptions, judgment and expectations regarding future performance or events. Although management believes that the expectations reflected in such statements are reasonable, they give no assurance that such expectations will prove to be correct and you should be aware that actual events or results may differ materially from those contained in the forward-looking statements. Words such as "will," "expect," "intend," "plan," "potential," "possible," "goals," "accelerate," "continue," and similar expressions identify forward-looking statements, including, without limitation, statements regarding:

- Our expectations for timing and achievement of the key corporate and COVID-19 milestones described in the presentation, including;
  - The target date for completion of patient enrollment in our Phase 3 trial of lenzilumab in COVID-19 patients;
  - The anticipated use of lenzilumab in the ACTIV-5 Trial sponsored by NIAID, and the anticipated scope of that trial and timeline for same;
  - Our potential request for and receipt of an Emergency Use Authorization from FDA for lenzilumab in COVID-19 and our expectations for filing a BLA; and
  - Our plans to launch and commercialize lenzilumab following receipt of the requisite regulatory authorizations or approvals; and
- Our expectations for timing and achievement of milestones for our pipeline outside of COVID-19, including in respect of our ZUMA-19 Phase Ib trial of lenzilumab that is being conducted with Kite, a Gilead company; our ongoing Phase I trial of ifabotuzumab in GBM patients; our plans for a study of lenzilumab in GvHD expected to be conducted with the IMPACT Group in the United Kingdom and a study in the US, and our plans for a study of lenzilumab in CMML in Australia;

Forward-looking statements are subject to a number of risks and uncertainties including, but not limited to, the risks inherent in our lack of profitability and need for additional capital to grow our business; our dependence on partners to further the development of our product candidates; the uncertainties inherent in the development and launch of any new pharmaceutical product; the outcome of pending or future litigation; and the various risks and uncertainties described in the "Risk Factors" sections of our latest annual and quarterly reports and other filings with the SEC.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You should not rely upon any forward-looking statements, as predictions of future events. We undertake no obligation to revise or update any forward-looking statements made in this presentation to reflect events or circumstances after the date hereof, to reflect new information or the occurrence of unanticipated events, to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, in each case, except as required by law.

Agenda

• Introduction	Cameron Durrant, CEO
• Phase 3 update	Dale Chappell, CSO
• CRADA/OWS	Tim Morris COO/CFO
• Questions	All

Positive Interim Phase 3 Data of Lenzilumab™ in COVID-19

- Current enrollment is 300 patients
- Interim analysis conducted on the first 165 patients
- Estimated 37% more recoveries observed with lenzilumab vs current standard of care
  - Phase 3 study is tracking to a successful outcome with a strong signal of efficacy on the primary endpoint
  - Lenzilumab is tracking to a result that is significantly above and beyond steroids and/or remdesivir
- DSMB recommendation to expand the study
  - Phase 3 trial is significantly de-risked by this data and current study plan
  - With the current study plan, the trial is 90% powered and has a high probability of success
  - Total of 515 patients to be enrolled in phase 3 study
- Interim efficacy analysis at 75% event rate to be performed (approximately 390 patients)
- EUA filing expected in Q1 2021
- Recent CRADA with DoD in support of OWS provides regulatory and manufacturing support for lenzilumab

Lenzilumab Phase 3-Understanding the Interim DSMB Analysis

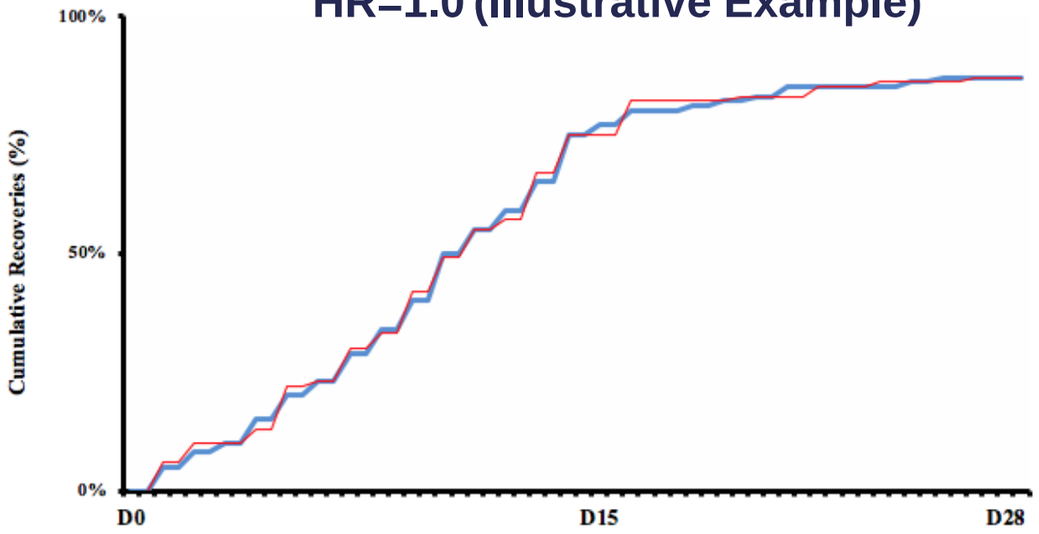
- Time to event analysis has four components (p-value, power, events, hazard ratio)
- Given three of the four components, the fourth component can be derived from the other three
- P-value is fixed at p=0.05
- Power is selected by HGEN/sponsor at 90%
- DSMB determines events to maintain power at 90% based on unblinded data and observed conditional power calculation in an adaptive trial design
- Hazard ratio (HR) can be derived/estimated from the number of events determined by the DSMB, p-value, and power
- Once HR is known, conditional power estimate at the interim can be derived from the known variables, original number of events, p-value, HR

Lenzilumab Phase 3-Primer on Hazard Ratio

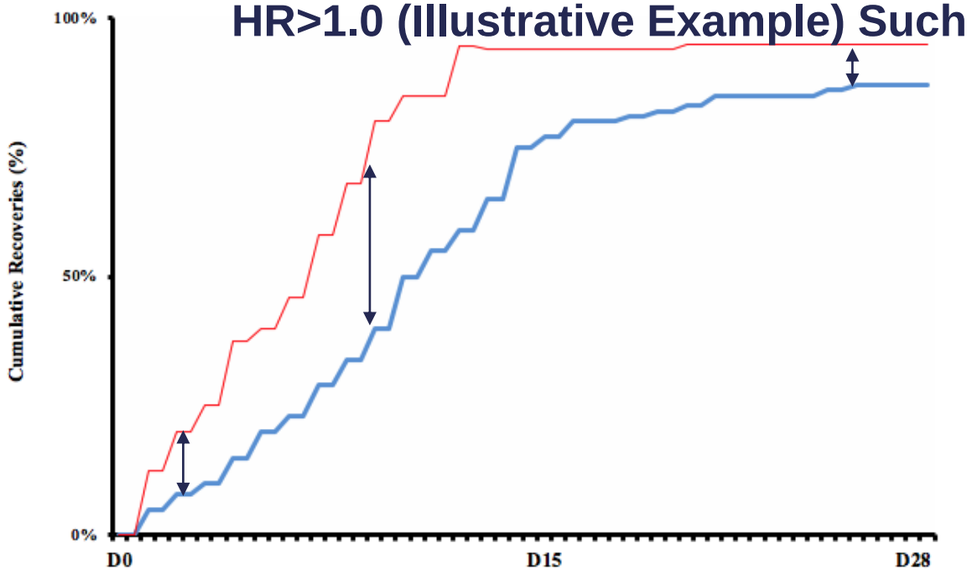
- Hazard ratio compares events (recoveries) observed in the treatment arm of the study compared to the control across all the time points through day 28 (E_t / E_c), where E_t and E_c are events in the treatment arm and control arm

- HR=1.0 means that the comparison of the number of recoveries in the treatment arm is the same, on average, as the recoveries in the control across all the time points through day 28

HR=1.0 (Illustrative Example)



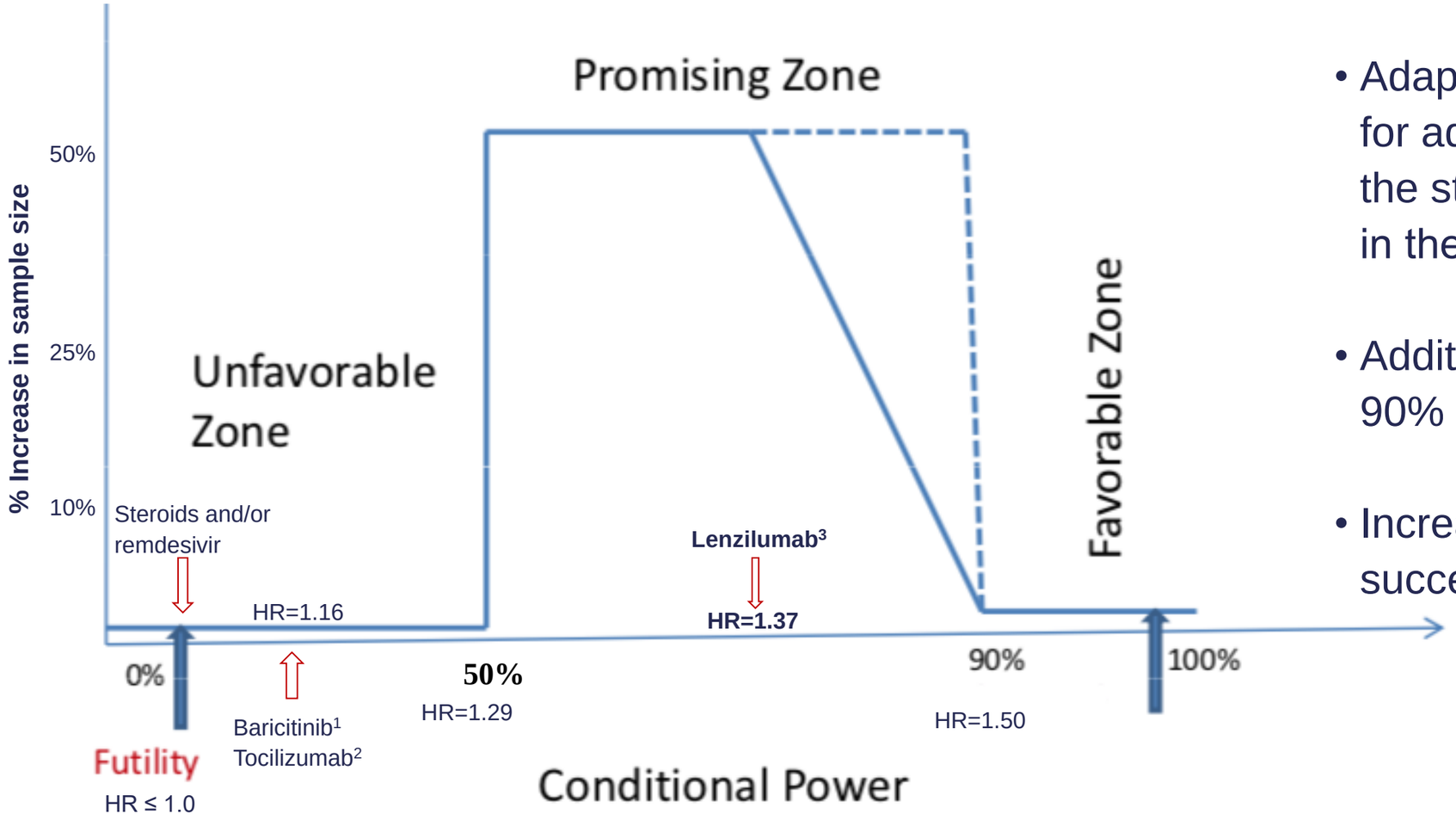
HR>1.0 (Illustrative Example) Such As >1.29



Lenzilumab Phase 3 Adaptive Trial Design

- Humanigen's phase 3 study is an adaptive trial design
- Initial trial design included n=300 to generate 257 events
- Trial designed as "real world", patients allowed access to remdesivir and steroids as background SOC in both arms. All patients, whether in the 'placebo' arm or the lenzilumab arm, received similar background care
- Trial designed to add patients only if the observed effect on the time to recovery is HR > 1.29
  - HR=1.29 means 29% more recoveries on average observed in the lenzilumab arm compared to the control arm (steroids and/or remdesivir) through day 28
- Lenzilumab trial tracking at an estimate HR=1.37 and DSMB recommendation is to add events as trial is in the "promising zone" of the adaptive trial design, demonstrating a high probability of success
  - **37% more recoveries** on average observed in the lenzilumab arm compared to the control arm (steroids and/or remdesivir) through day 28

Lenzilumab Phase 3-Adaptive Trial Design



- Adaptive trial design allows for addition of patients during the study if interim results are in the “promising zone”
- Addition of patients maintains 90% power
- Increases probability of success

[1]ACTT-2
[2]EMPACTA
[3]Lenzilumab HR based on observed interim analysis with the large majority of patients on concomitant remdesivir and/or steroids

Lenzilumab Phase 3-Interim Analysis Interpretation

Disease stratification	n=165
O2 Sats < 94% or low-flow	65%
high-flow/NIPPV	35%
Age stratification	
18-64	55%
>65	45%
Diversity	
Hispanic/Latino	28%
Black/African-American	22%
Concomitant therapies	
Dexamethasone (+ other steroids) or remdesivir	78%
Dexamethasone (+ other steroids)	72%
Remdesivir	61%
Dexamethasone (+ other steroids) + remdesivir	55%
Interim analysis (primary endpoint)	
Observed hazard ratio	1.37*
Events planned	257
DSMB recommended events	402
Power at new event rate	90%

- Patient characteristics for first 165 patients show good distribution of
  - Disease severity
  - Age
  - Diversity
- Extensive use of concomitant therapies
- Estimated HR of 1.37 suggests 37% increase in recoveries with lenzilumab

*** Benefit that is in addition to any benefit from steroids and/or remdesivir in the control arm**

Lenzilumab Phase 3-Interim Analysis Interpretation

- Based on the first 165 patients (randomized, double-blind, placebo-controlled, multicenter), lenzilumab tracking to a result that is significantly better than steroids and/or remdesivir alone (estimated HR=1.37):
    - 37% more recoveries on average in the lenzilumab arm compared to the control arm (steroids and/or remdesivir) through day 28

- Lenzilumab interim results even more impressive given large majority of patients on concomitant active therapies (remdesivir and/or steroids)

- The observed benefit of lenzilumab is additional to remdesivir and/or steroids as background SOC therapies
    - Baracitinib result in ACTT-2 is more typical of an add-on therapy (HR=1.16)

- No SAE's have been attributable to lenzilumab (no SAE's related to infections, Pulmonary Alveolar Proteinosis, etc.)

- The trial is 90% powered (402 events, approximately 515 patients) to show the observed benefit at the interim analysis, HR=1.37 and has a very high probability of success

- **Planned interim analysis for efficacy at 75% enrollment (approximately 390 patients) may stop enrollment for overwhelming efficacy (current enrollment 300 patients)**

Lenzilumab Phase 3-Interim Analysis Conclusion

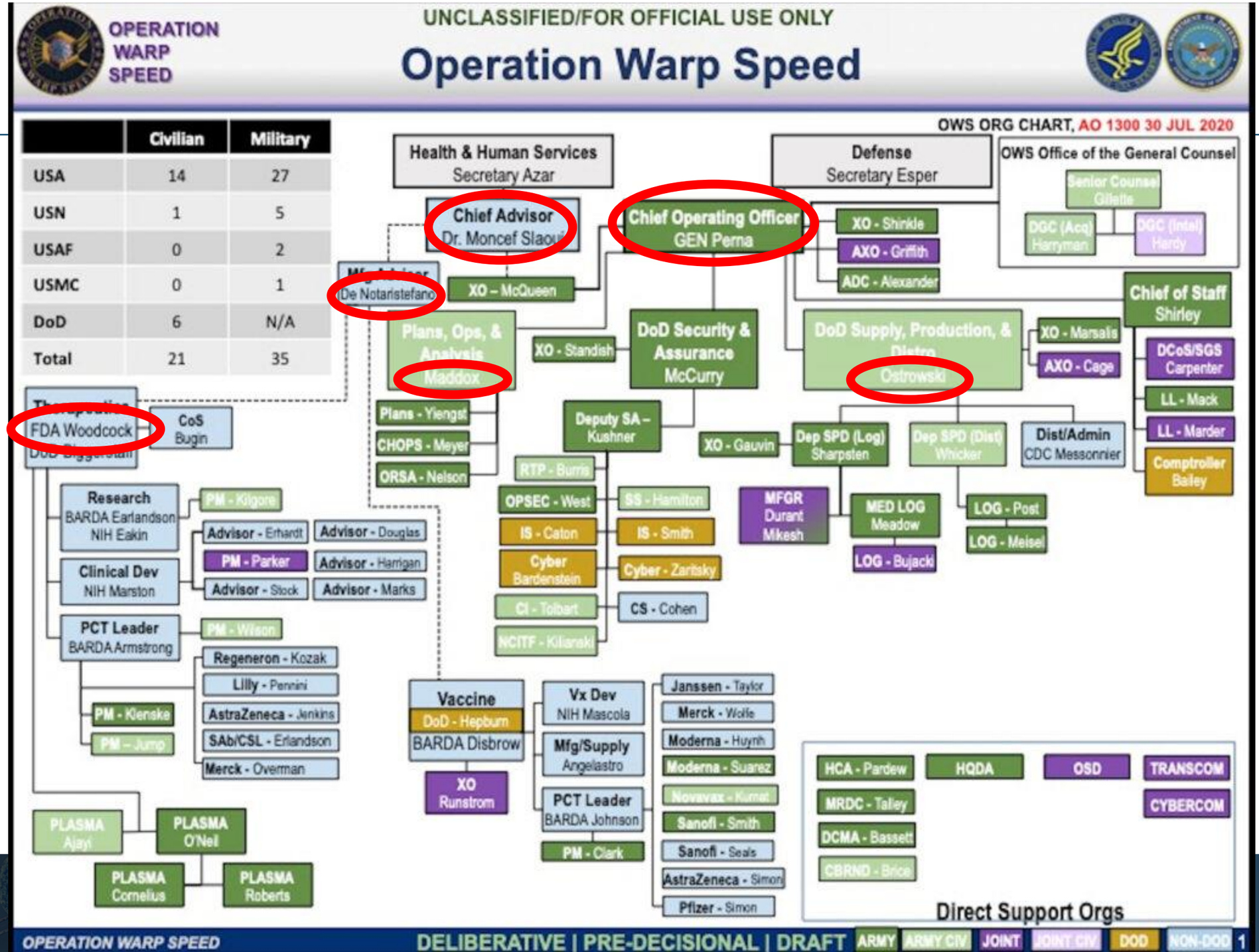
- Lenzilumab treatment tracking better than standard of care
- Phase 3 study being expanded, additional study sites being added
- 90% powering maintained
- Program significantly de-risked
- EUA filing expected Q1 2021
- Interim efficacy analysis to be completed at 75% events
- CRADA provides regulatory and manufacturing support

CRADA and Operation Warp Speed

Cooperative Research and Development Agreement with DoD aims to improve availability to lenzilumab

CRADA signed with Department of Defense Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND)

- In collaboration with Biomedical Advanced Research and Development Authority (BARDA)
- Part of Assistant Secretary for Preparedness and Response (ASPR) at the US Department of Health and Human Services (HHS)
- In support of Operation Warp Speed (OWS)
- CRADA provides access to OWS Subject Matter Experts
- Chief Advisor, Dr. Moncef Slaoui, former Chairman, Global Research and Development and Chairman, Global Vaccines, GlaxoSmithKline
- Regulatory input and assistance (including FDA staffers)
- Statistical analysis
- Manufacturing and Supply Chain



Key Members of OWS

- Moncef Slaoui
- General Gustave Perna
- Janet Woodcock
- Carlo De Notaristefano
- Colonel Deacon Maddox
- Lt. General Paul Ostrowski

OWS Regulatory Participation and Expertise

- Interim results (unblinded) shared with OWS
- OWS therapeutic efforts headed by Janet Woodcock, director of the Center for Drug Evaluation and Research (CDER) at FDA
- Review of all submissions and correspondence to FDA
- OWS FDA SME attendance at company meetings with FDA
- OWS will be included as a Named Contact on all FDA filings
- OWS concurs with expansion of the Phase 3 study and path forward

OWS Manufacturing and Supply Chain Expertise

- Manufacturing experts include Carlo De Notaristefano, Exec VP, Global Ops, Teva
- OWS efforts lead by General Gustave Perna, US Army four-star general, Chief Operating Officer (previously served as the 19th commanding general of United States Army Material Command)
- Logistics expertise provided by Colonel Deacon Maddox, career logistics expert
- Contracting and procurement assistance provided by Lieutenant General Paul Ostrowski

Benefits of CRADA

- Regulatory guidance and assistance provided by FDA experts enhances FDA interaction
- Provides to access to BARDA existing relationships with CMOs
  - Potential for preferential scheduling and capacity allocation
- Ability to tap into current stock of critical components
- CRADA precursor to potential contract for development of lenzilumab

Questions and Discussion