Roche Pharma Day 2020

Late Stage Immunology, Ophthalmology and Infectious Disease

Cristin Hubbard | Senior Vice President Immunology, Infectious Disease & Ophthalmology, Global Product Strategy
Roche’s response to the pandemic
Commitment every step of the way

**Diagnostics**
- Research & development for best-in-class solutions
- Deliver high quality diagnostics with flexible throughput
- Strong local support and partnership
- Holistic disease and patient-oriented approach
- SARS-CoV-2 PCR, Ab & rapid antigen test
- SARS-CoV-2/Influenza A/B differentiation test
- Other routine and diagnostic tests

**Pharma**
- Innovative therapies with various MOAs
- World-leading biologics manufacturing capacity
- Strong partnerships with healthcare ecosystems across the globe
- Xofluza
- Actemra
- REGN-COV2 nAB cocktail
Late stage pipeline update

1. Hematology franchise
   - DLBCL: Polivy, glofitamab, mosunetuzumab
   - FL: mosunetuzumab, glofitamab, Polivy
   - AML: Venclexta
   - MM: Venclexta
   - MDS: Venclexta

2. Breast Cancer franchise
   - TNBC: Tecentriq, ipatasertib
   - HR+: SERD (RG6171), PI3Kαi (RG6114)
   - HER2+: Tecentriq

3. Lung Cancer franchise
   - NSCLC: Tecentriq, tiragolumab
   - SCLC: Tecentriq, tiragolumab
   - ALK+: Alecensa
   - ROS1+/NTRK+: Rozlytrek
   - RET+: Gavreto
   - KRAS G12C+: GDC-6063

4. Other oncology
   - CRPC: ipatasertib
   - Thyroid cancer: Gavreto
   - Esophageal cancer: tiragolumab
   - Melanoma: Tecentriq, Cotellc, Zelboraf

5. Non-malignant hematology
   - Hemophilia A: Hemlibra
   - Hemophilia A: Factor VIII Gene Therapy
   - PNH: crovalimab

6. Neuroscience
   - MS: Ocrevus; fenebrutinib
   - SMA: Evrysdi
   - NMOSD: Enspryng
   - AD: gantenerumab, anti-Tau, brain shuttle
   - Huntington’s disease: tominersen
   - DMD: Micro-dystrophin Gene Therapy
   - Parkinson’s disease: prasinezumab

7. Immunology
   - IPF: rhPentaxin-2, Esbriet
   - Myelofibrosis: rhPentaxin-2
   - Lupus nephritis: Gazyva
   - Crohn’s disease: etrolizumab

8. Ophthalmology
   - nAMD, DME, DR: Port Delivery System
   - nAMD, DME, RVO: faricimab

9. Infectious diseases
   - HBV: TLR7 agonist, CpAM, RG6346, RG6084
   - Influenza A/B: Xofluza
   - SARS-CoV2: Actemra
   - SARS-CoV2: REGN-COV2

* For further information on target patient populations please consult the appendix; For further details on the late stage pipeline please consult the HY 20 results presentation appendix or visit the IR homepage.
Xofluza in influenza A/B

Ph III studies «prevention of transmission» and infants on-going

**CAP dependent endonuclease inhibitor**

- First-in-class small molecule inhibiting viral RNA replication; stops viral shedding + reduces viral load significantly faster than the current SOC
- Oral, single-dosing
- Safety similar to placebo
- Activity against Tamiflu-resistant and avian strains (H7N9, H5N1)

**Ph III development**

- Ph III (miniSTONE-1) for infants <1yr; results expected in 2022
- Ph III (CENTERSTONE) for prevention of influenza transmission; results expected 2022
- Xofluza approved for healthy people in 24 countries; Global filings for high-risk patients, pediatrics, post-exposure prophylaxis on-going
- FDA emergency use authorization for the cobas SARS-CoV-2 + Influenza A/B test with a single sample, obtained in Q3 2020

**SARS-CoV-2 & Influenza A/B test for cobas 6800/8800**

- cobas® 6800
  1,440 results in 24 hours
- cobas® 8800
  4,128 results in 24 hours

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Actemra in severe COVID-19 associated pneumonia

Ph III COVACTA: Primary and key secondary endpoints not met

Anti-IL6 receptor mAb

- Initially approved in RA and GCA
- Approved for CAR T-cell–induced cytokine release syndrome
- Ph III program (REMDACTA, EMPACTA, MARIPOSA, J-COVACTA) in COVID-19 associated pneumonia on-going*

Ph III (COVACTA) in severe COVID-19 associated pneumonia¹

Key secondary endpoints

- Ph III (COVACTA) did not meet its primary endpoint of improved clinical status of patients or key secondary endpoint of reduced mortality at day 28
- Potentially clinically meaningful benefits in time to hospital discharge and duration of ICU stay
- Ph III (REMDACTA) results for Actemra + remdesivir expected in Q4 2020

¹ Rosas I, et al; submitted to NEJM Aug 2020; available on medRxiv Aug 2020; RA = rheumatoid arthritis; GCA = giant cell arteritis; CAR T = chimeric antigen receptor T-cell; ICU = intensive care unit; *Additional studies are ongoing and might expand the findings of COVACTA and address outstanding scientifically and medically relevant questions regarding the risk/benefit profile of tocilizumab in COVID-19 in more narrowly defined patient populations and in conjunction with current treatments.
Neutralizing antibodies (nAbs) against SARS-CoV2
Promising for treatment and prophylaxis

REGN-10987
REGN-10933
REGN-10943
REGN-10975

REGN-10987
REGN-10933
REGN-10943
REGN-10975

REGN-10987
REGN-10933
REGN-10943
REGN-10975

Antibodies block the virus’s Spike protein, neutralizing its ability to bind and infect

REGN-COV2 antibody “cocktail”

• Two potent, virus-neutralizing Abs binding non-competitively to the critical receptor-binding domain of the virus’s spike protein
• The virus would need to have multiple simultaneous mutations at multiple genetic sites in order to escape the nAb cocktail, which is an unlikely scenario*

Currently enrolling trials:
• Ph II/III study in hospitalized COVID-19 patients
• Ph II/III study in non-hospitalized COVID-19 patients
• Ph I multidose study in adult volunteers (pre-exposure)
• Ph III prophylaxis of housemates of infected individuals **
• First results expected in September 2020

* A. Baum et al., Science 10.1126/science.abd0831 (2020); In collaboration with Regeneron; ** In collaboration with NIAID
Doing now what patients need next