

Welcome

Cell & Gene Meeting on the Mesa

Janet Lambert, CEO ARM

Thank You to the ARM Events Team!



Laura Parsons *Senior Director, Marketing And Events*



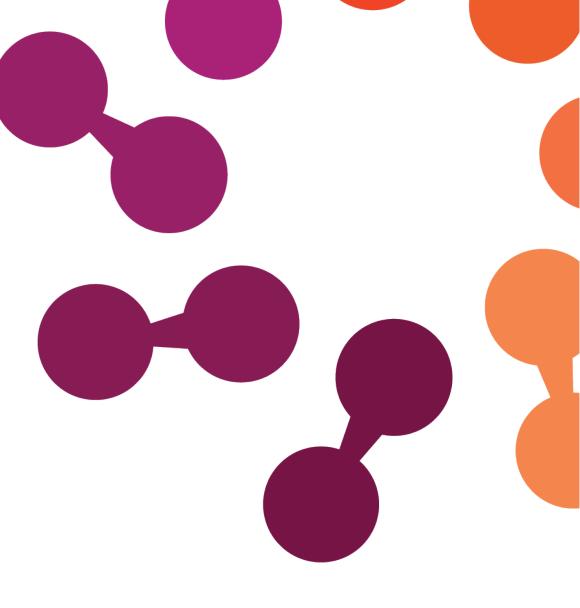
Bethany Kraynack *Vice President, Operations*



Chelsey Hathaway
Director, Patient Engagement And Events



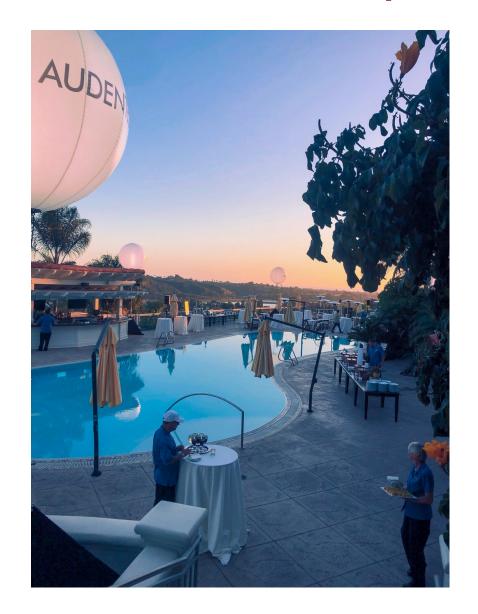
Jeanette Lazusky
Coordinator, Events





ARM's 10th Anniversary













Patient Impact of Recently Approved Products



Therapy Name	Product Developer	Response
Kymriah	Novartis	 40% of patients with R/R DLBCL treated experienced a complete response 60% of patients with R/R B-Cell ALL treated experienced a complete response
Yescarta	Kite Pharma, a Gilead company	58% of patients with R/R B-Cell NHL treated experienced a complete response
LUXTURNA	Spark Therapeutics	55% of patients treated showed an improvement of 2+ light levels darker after treatment
Zolgensma	AveXis / Novartis	93% of patients SMA Type 1 treated were alive without permanent ventilation at 24 months post-treatment
Zynteglo	bluebird bio	• 75% of patients with TDT without β0/β0 genotype treated achieved transfusion independence

Select Anticipated Near-Term Approvals (Global)





Gene Therapy

Zolgensma (AveXis / Novartis)

- Spinal muscular atrophy type 1
- Decision expected: mid 2019 (EU & Japan)

GT-AADC (PTC Therapeutics)

- AADC deficiency
- Expects to file: late 2019 (US)

Zynteglo (bluebird bio)

- Beta thalassemia
- Expects to file: 2019 (US)

Valrox (BioMarin)

- Hemophilia A
- Expects to file: Q4 2019 (US & EU)

GS010 (GenSight Biologics)

- Leber hereditary optic neuropathy
- Expects to file: H2 2020 (US & EU)

AT132 (Audentes Therapeutics)

- X-linked myotubular myopathy
- Expects to file: H2 2020 (US)

OTL-101 (Orchard Therapeutics)

- ADA-SCID
- Expects to file: 2020 (US)

OTL-200 (Orchard Therapeutics)

- Metachromatic leukodystrophy
- Expects to file: 2020 (US & EU)

Select Anticipated Near-Term Approvals (Global)





Cell-Based Immuno-Oncology

Rivo-cel (Bellicum Pharmaceuticals)

- HSCT to treat blood cancers
- Expects to file: EOY 2019 (EU)

tab-cel (Atara Biotherapies)

- EBV-PTLD
- Expects to file: 2H 2019 (US)

liso-cel (Celgene)

- Diffuse large B-cell lymphoma (DLBCL)
- Expects to file: Q4 2019 (US)

ide-cel (bluebird bio / Celgene)

- Multiple myeloma
- Expects to file: 1H 2020 (US)

ATIR101 (Kiadis Pharma)

- HSCT to treat blood cancers
- Decision expected: 1H 2020 (EU)

P-BCMA-101 (Poseida Therapeutics)

- Multiple myeloma
- Expects to file: 2020 (US)

Lifileucel (Iovance)

- · Advanced metastatic melanoma
- Expects to file: 2020 (US)

LN-145 (Iovance)

- Advanced metastatic cervical cancer
- Expects to file: 2H 2020 (US)

Select Anticipated Near-Term Approvals (Global)





Cell Therapy



Tissue-Based

SB623 (SanBio)

- Traumatic brain injury
- Expects to file: January 2020 (Japan)

Remestemcel-L (Mesoblast)

- Acute graft versus host disease
- Decision expected: 2020 (US)

TEMCELL (Mesoblast / JCR Pharma)

- Epidermolysis bullosa
- Decision expected: 2020 (Japan)

RVT-802 (Enzyvant Therapeutics)

- Complete DiGeorge anomaly
- Decision expected: 2019 (US)

Humacyl (Humacyte)

- End stage renal disease
- Expects to file: 2020 (US)

Stratagraft (Mallinckrodt)

- Deep partial thickness burns
- Expects to file: 2020 (US)