

### **Connecting Cell and Gene Therapies to Patients**

This document was produced by Simon Ellison, Simon died in the Spring of 2020 after a short illness. He is much missed within the Northern Alliance. He played a transformational role in adapting and enhancing supply chains for cell and gene therapies, part of his commitment to rapid and effective delivery of these advanced therapies to patients over a number of years. We remember Simon with admiration. In recognition of his contribution we note it here.



## Connecting Cell and Gene Therapies to Patients

Regenerative Medicine UK: Sweden – London delegation

Simon Ellison 13<sup>th</sup> May 2019

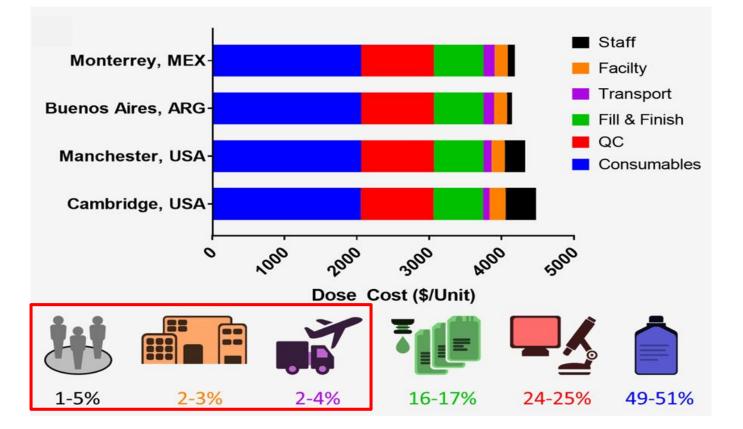






### How significant is the cost of logistics?

#### Logistics has same cost impact as staff and facility costs !

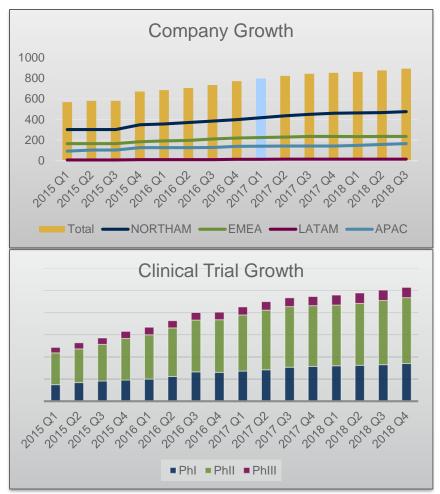


Chimeric antigen receptor–T cell therapy manufacturing: modelling the effect of offshore production on aggregate cost of goods Richard P. Harrison, Ezequiel Zylberberg\*, Simon Ellison, Bruce L. Levine. Cytotherapy, In Press



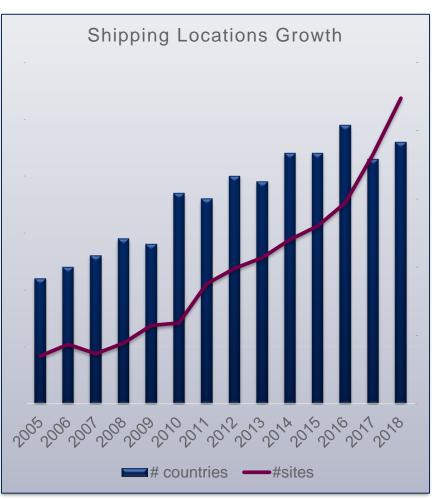


## World Courier - global capability & understanding



ARM Quarterly Reports

World Courier Internal Data







#### World Courier - Trust and Consistency

Logistics Platform Developer, managing Time Sensitive / Temperature Critical Shipments for the Advanced Therapy Industry









GLOBAL SUPPORT 140 offices in 50 countries



TEMPERATURE Supporting +37 to -190C shipments

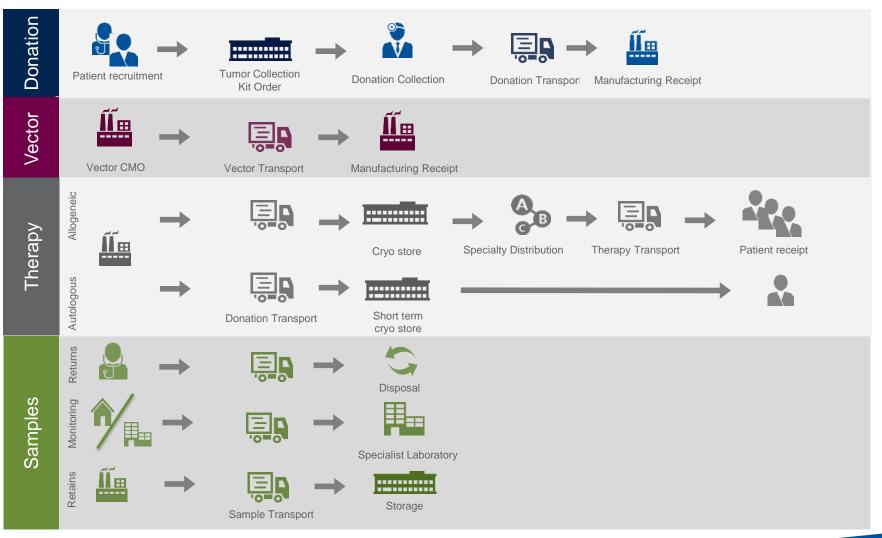


DEDICATED Customer Service teams for advanced therapies



## World Courier

#### World Courier - Advanced Therapy Integrated Support







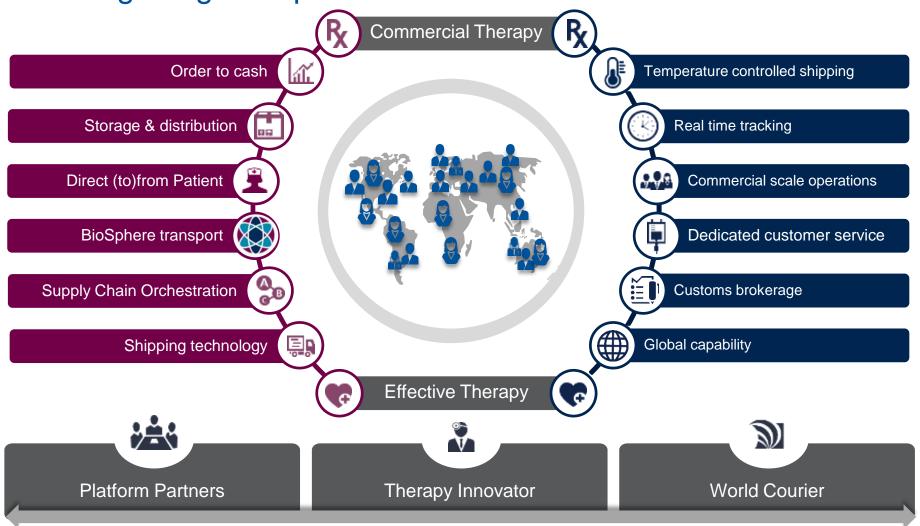
#### World Courier – Managing Logistics







#### Building a logistics platform







#### Logistics Platform in Operation



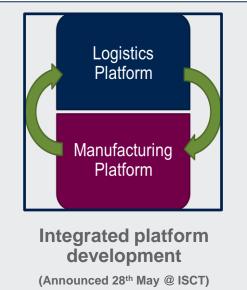
#### **ATTC Collaborator**

- Developing seamless supply chain
- Integrate and apply learnings throughout global network



#### Global LN2 Charging Capability

- 12 charging centres, and capability throughout global network
- Driven by a single quality system and underpinned by established SOPs
- Supporting over 10,000
  cryo shipments annually



- Relationship with key manufacturing infrastructure organisation
- Support therapy developers in scaling up through clinical into commercial operations
- Integrate Logistics & Manufacturing Platforms



World Courier's people, operational expertise, and office locations will support the success of your therapy



- **Focus on Communication:** Automated updates; 24/7 dedicated Customer Service and Clinical Trial teams; GPS tracking; unparalleled emergency response

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- **Pro-Active Chain of Custody:** Thorough SOPs and Work Instructions to maintain chain of custody; shipment tracking through systems and GPaS
- **Own Office Network:** 98% percent of all activity takes place in countries where we have offices (including pick up, drop off, and transhipments)
- Contingency Planning: Pre-arrangements with emergency services (ambulances, local police escorts, helicopter); WC office dry shipper supply
- State of the Art Training: Proprietary Training Resource Center and Agent Resource Center; Site training plan
- а**й**.
- **Scalable Processes:** Training infrastructure; Packaging Management Hubs (PH1); extensive network; Technology (Biostar); Quality Management System
- Preferred Partner: FCPA compliant; regular local and global audits; constantly investing to support client needs; resourced to overcome any challenge



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Where knowledge, reach and partnership shape healthcare delivery.