

Clinical Research at the NIH

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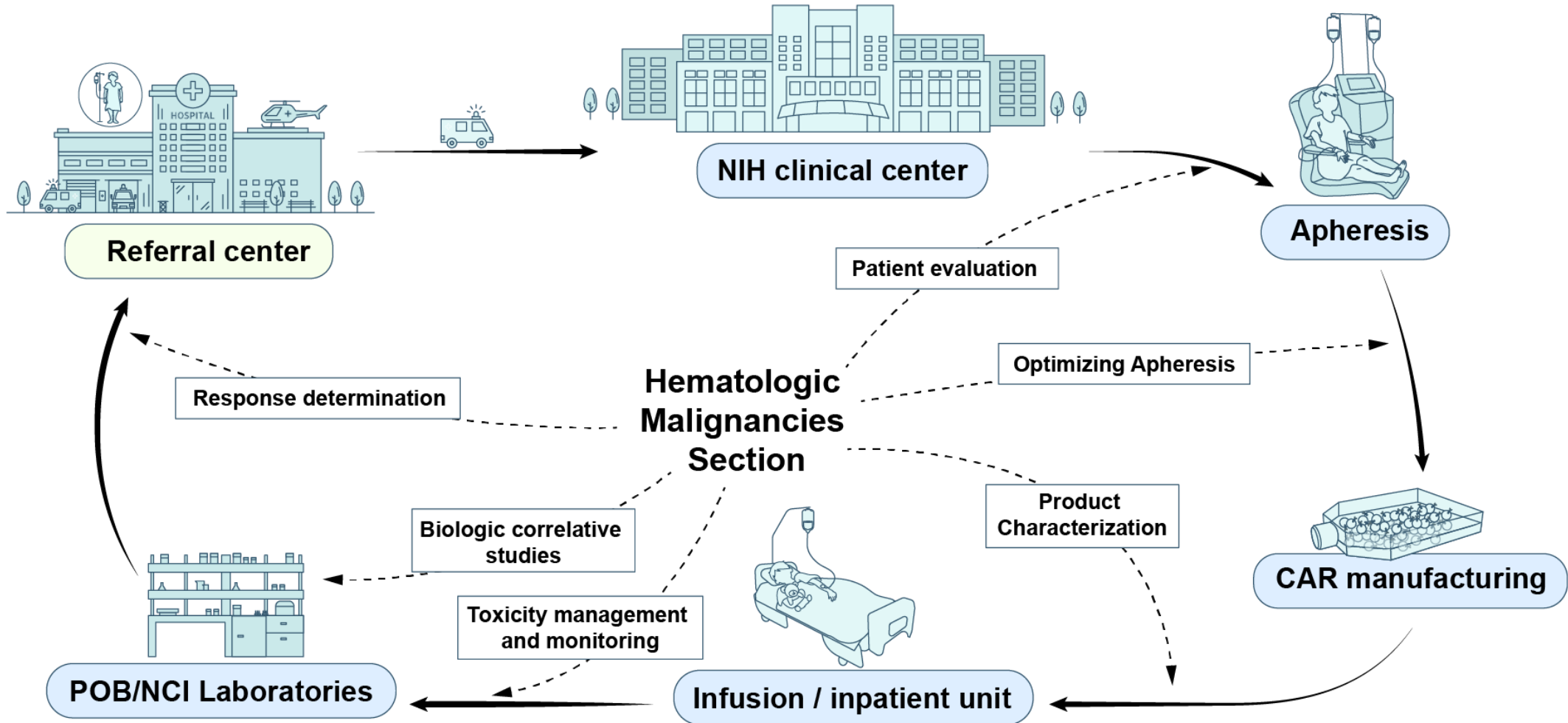
Pediatric Oncology Branch

National Cancer Institute

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It takes a village...

July 2012: CD19 CAR
December 2014: CD22 CAR
May 2018: CD19/22 CAR
March 2020: CD33 CAR (AML)



Extensive correlative studies are embedded in the infrastructure of these novel immunotherapies

- **Cytokine profiling**
- **CAR T-cell trafficking, persistence and expansion**
 - Blood, bone marrow and CSF
- **Toxicity and response monitoring**
 - Routine clinical laboratory evaluations
 - Anti-cytokine directed therapy
 - Prospective neurotoxicity evaluations
 - Patient reported outcomes
 - Adverse event monitoring
 - Imaging
- **Leukemia biology**
 - Evaluation of CD19/22 expression
 - Lineage switch
 - Immunophenotypic evaluations
 - Genomics
- **Optimization Strategies**
 - Manufacturing
 - CAR T-cell product analysis
 - Toxicity mitigation
 - Immunogenicity
- **Highly collaborative network**

