



# AUTOLOGOUS CAR-T CELL THERAPY

## *A developmental timeline by Evolution Global*

*Following the recent deaths in Juno's Phase II trials, the risks surrounding autologous CAR-T Cell Therapy treatments are in the spotlight. In spite of the exorbitant investment in and valuation of the companies involved, do recent developments signify the beginning of the end?*

- 2009** — **2009:** California-based Kite Pharma is founded by Israeli-American oncologist Dr. Arie Belldegrun
- 2010** —
- 2011** — **March:** Kite raises \$15M in private placement
- 2012** —
  - August:** University of Pennsylvania & Novartis form alliance to expand use of personalised T-cell therapy for cancer patients.
- 2013** — **2013:** Juno Therapeutics founded
  - May:** Kite raises \$20M in private placement
- 2014** —
  - December:** Juno raises \$120M in private placement
  - April:** Kite raises \$50M & Juno raises \$56M in VC funding
  - June:** Kite IPO results in gross proceeds of \$147M
- 2015** — **December:** Juno IPO results in gross proceeds of \$265M
- 2016** —
  - May:** First patient dies in Juno Phase II clinical trial
  - July:** Two more patients die; trial halted; Juno states that "fludarabine in some ways acts like a dose amplifier;" FDA allows trials to resume within seven days of halt
  - August:** Novartis announces dissolution of cell & gene therapy unit
  - November:** Two more patients die; Juno trial halted



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