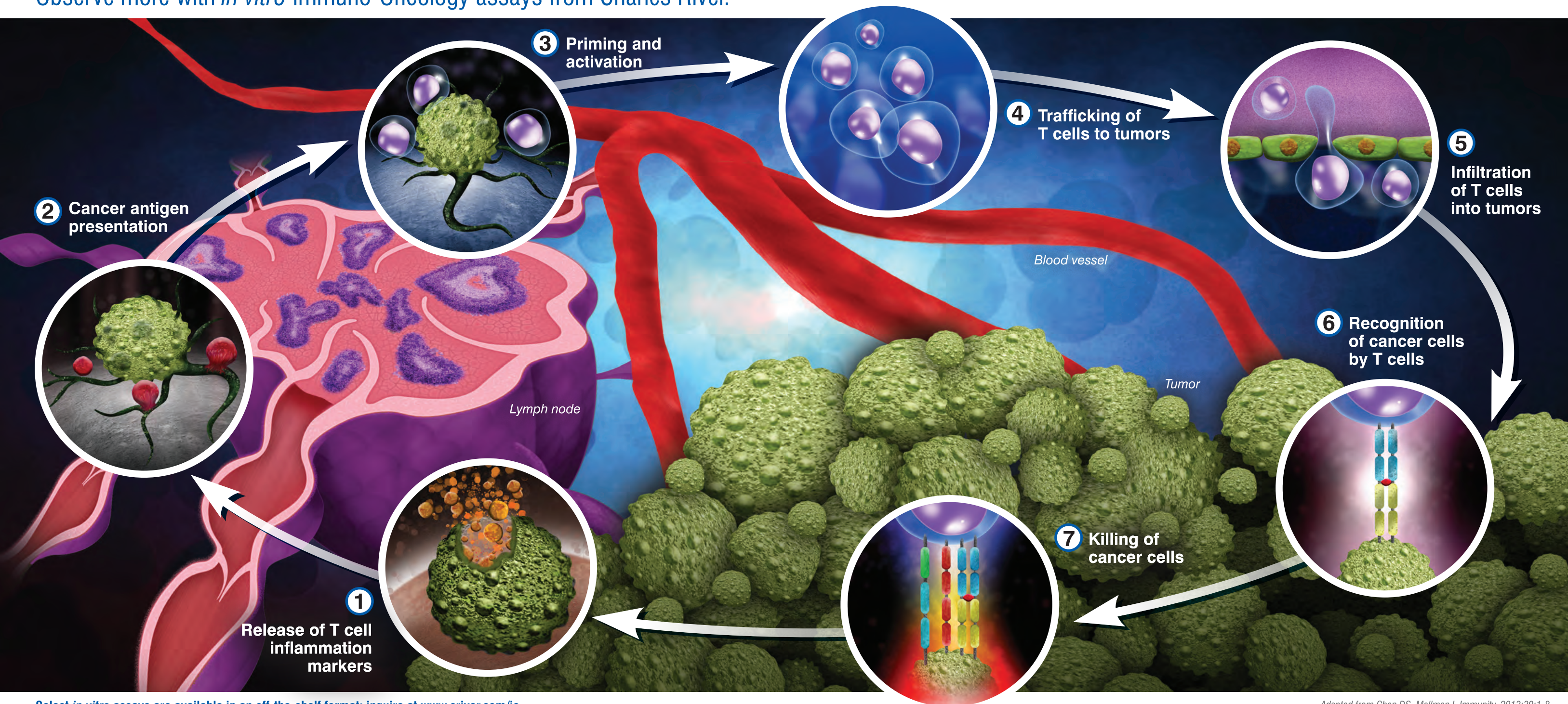


# The Cancer-Immunity Cycle

Observe more with *in vitro* Immuno-Oncology assays from Charles River.



Select *in vitro* assays are available in an off-the-shelf format; inquire at [www.criver.com/io](http://www.criver.com/io).

Adapted from Chen DS, Mellman I. *Immunity*. 2013;39:1-8

## 1 Release of cancer cell antigens

- Cytokine response
- Immunogenic cell death
- Immunosuppressive signalling markers
- Expression of checkpoint marker
- Tumor associated macrophage (TAM)

## 2 Cancer antigen presentation

- T cell responsiveness in co-cultures

## 3 Priming and activation

- T cell proliferation
- T cell exhaustion
- Antigen-specific human CTL/Super-antigen T cell activation
- Modelling immune cell synapse formation and maintenance
- nTreg, iTreg
- T cell differentiation

## 4 Trafficking of T cell to tumors

- T cell chemotaxis
- T cell/DC adhesion
- Trans-endothelial migration

## 5 Infiltration of T cells into tumors

- TIL immuno-phenotyping (murine)

## 6 Recognition of cancer cells by T cells

- Recognition of cancer antigens for T cell targeting

## 7 Killing of cancer cells

- T cell cytotoxicity (2D and 3D)
- NK cell cytotoxicity
- ADCC