

**CuraB-10:**  
**A First-In-Class IO antibody targeting tumor-specific immune suppressive sMIC**

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# Innovation & Applications

## UNMET NEED TO FIGHT CANCER

### Most metastatic cancers remain untreatable

- Traditional chemotherapies - limited efficacy and/or high toxicity
- Immunotherapy (IO) - tremendous promise but with limited efficacy

### STATs of current FDA approved IO drugs (Immune Checkpoint Inhibitors - ICIs)

15% (across all cancers)	Objective Response (OR)
<2% (across all care cases)	Curative Rate (CR)

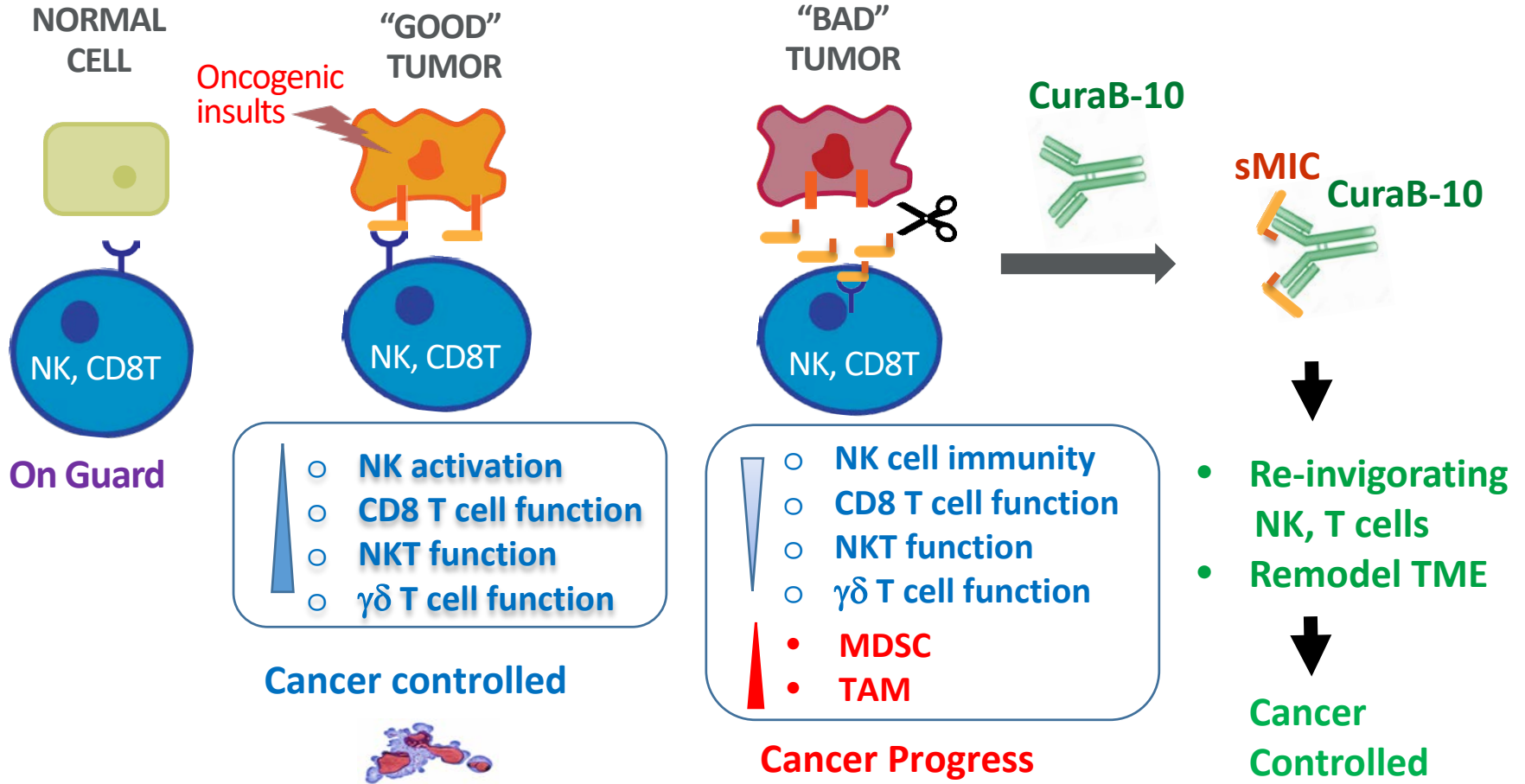
# Innovation & Applications

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## INNOVATION OF CuraB-10

- First-in-class therapy to fuel up the immune system (rather than to release brake)
- A novel target, tumor-released immunosuppressive soluble MIC (**sMIC**)
- >80% of solid-tumor cancer patients have sMIC in the circulation
- The target, sMIC, is cancer-specific. None to limited toxicity is anticipated
- Circulating sMIC, a potential biomarker for patient stratification
- Preclinically, CuraB10 is effective alone and synergizes with FDA-approved IO drugs
- The target, sMIC, recently identified as a cause of IO failure (*PMID 29123961. 28811958*)

# The Biology of CuraB10 Technology



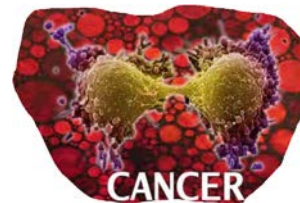
MIC = MHC I Chain-related molecule



Membrane MIC A/B (mMIC)

Soluble MIC A/B (sMIC)

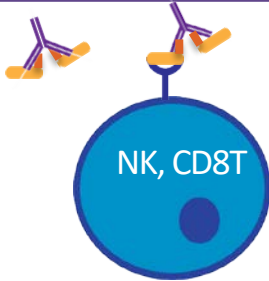
NKG2D, activating immune receptor

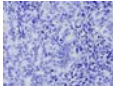
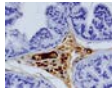
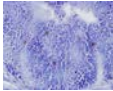
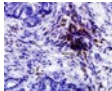


# MOA of CuraB-10

**Dual action:** neutralize sMIC immune suppression and enhances mMIC immune stimulation


## Dual action of CuraB10



	Control	CuraB10
NK		
CD8 T		

- Invigorate NK and CD8 T cell immunity
- Immobilizes NK and CD8T to tumors
- Stabilizes surface receptor NKG2D for m-MIC

**Differentiate from current ICI drugs**



Enables membrane MIC to bind to NKG2D for immune stimulation

**Differentiate from in-development competitor anti-sMIC antibody**

Zhang et. AL., 2017, Science Adv.  
Lu et al., 2015, Clin. Can. Res.  
Xiao, 2015, JHO and manuscripts in submission

CuraB-10



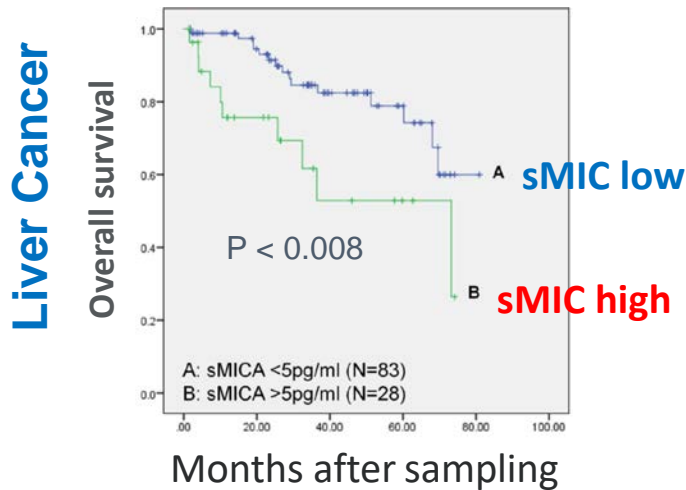
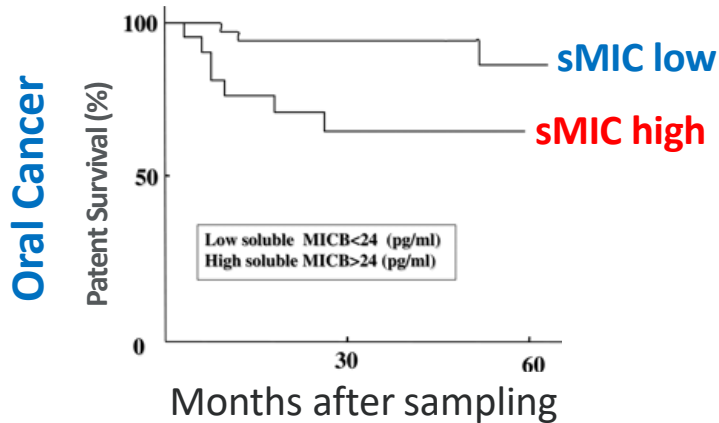
m-MIC

sMIC

NKG2D

# Clinical Potential

sMIC biomarker enables patient selection across many indications



## Cancers with circulating sMIC

Tumor Type	MICA/B
Carcinoma	
• Ovarian	A/B
• Cervical	A
• Breast	A/B
• Lung	A/B
• Liver	A/B
• Colon	A
• Prostate	A
• Head and Neck	A/B
• Pancreatic	A
Multiple Myeloma	A
Melanoma	A
Neuroblastoma	A

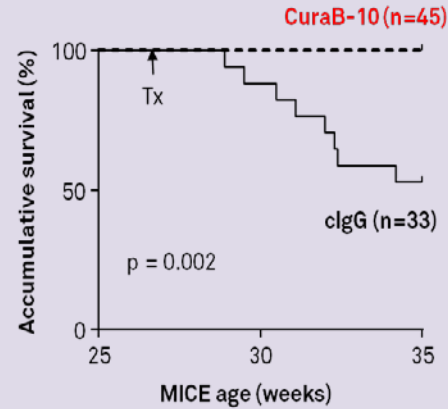
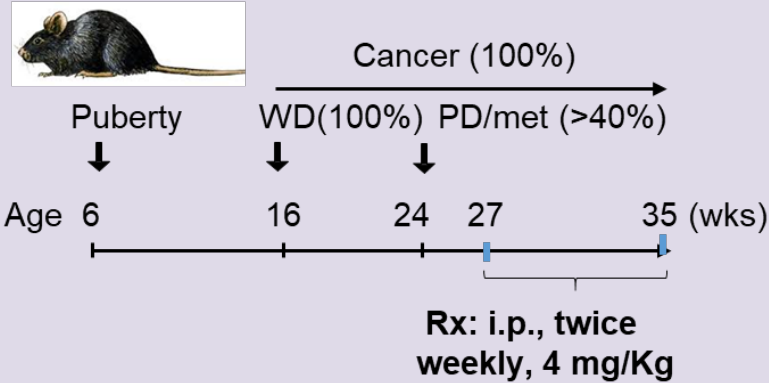
Tamaki et al, AntiCancer Research 2010; Kumar V et al, PloS One 2012;  
Vyas et al. Oncoimmunology 2017; Wu, JCI 2004; Liu, JCI, 2013;  
Dhar and Wu, Current Opinion Immunology, 2018



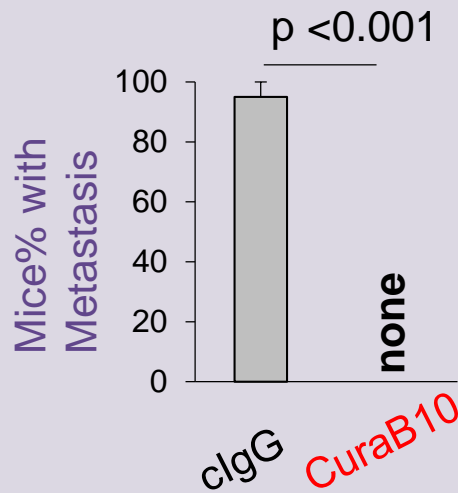
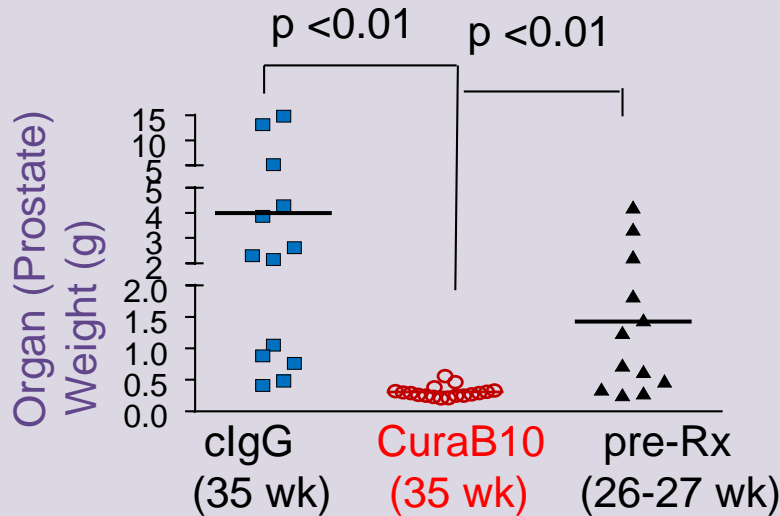
# Preclinical Studies | Single agent CuraB-10

## Effectively shrinks tumors and eliminates metastasis

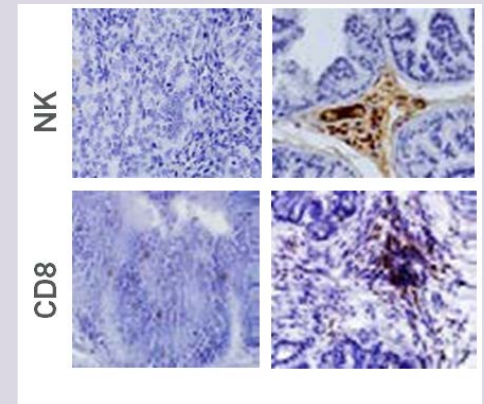
### TRAMP/MIC mice



### Control



### control CuraB10

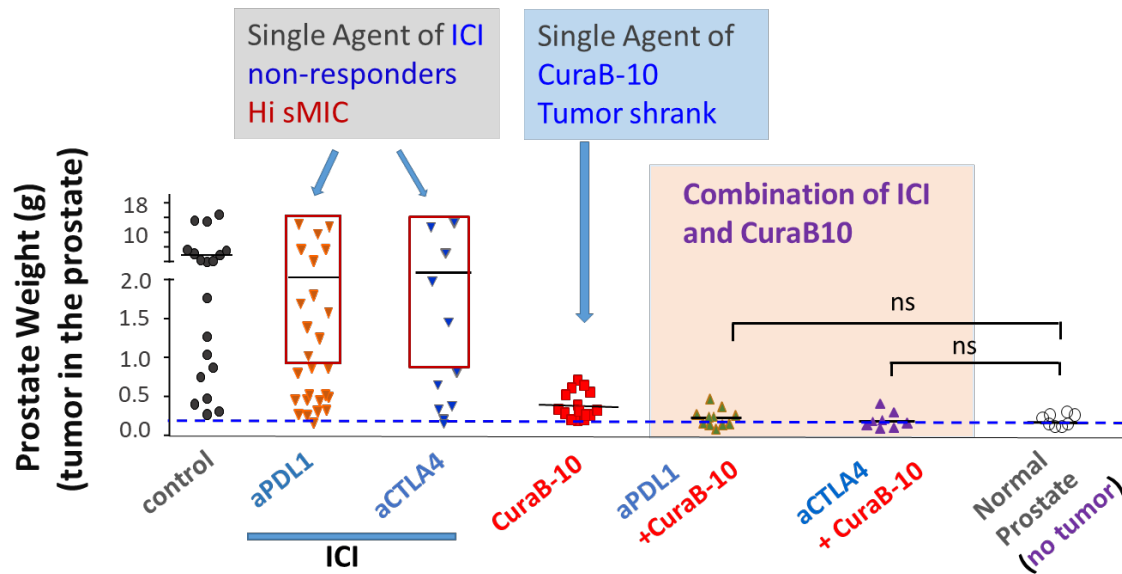




# Preclinical Studies

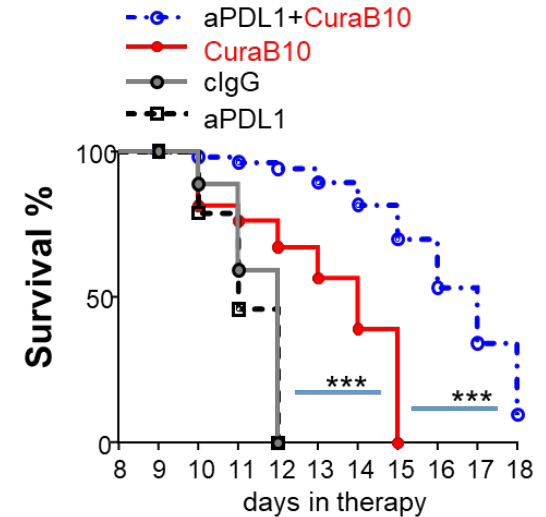
CuraB10 is effective in ICI non-responders & enhances response to ICI

## Spontaneous tumor model (prostate, autochthonous tumor)



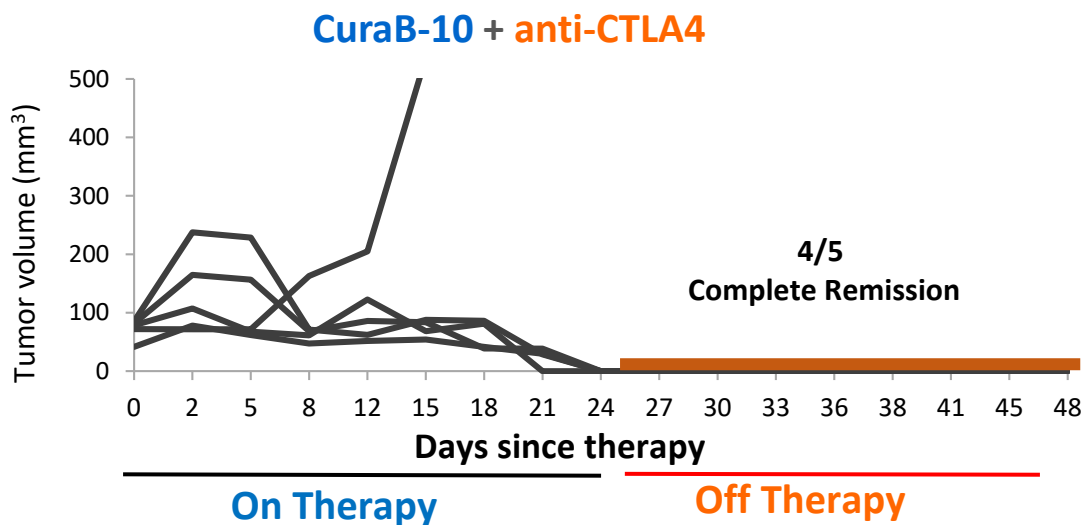
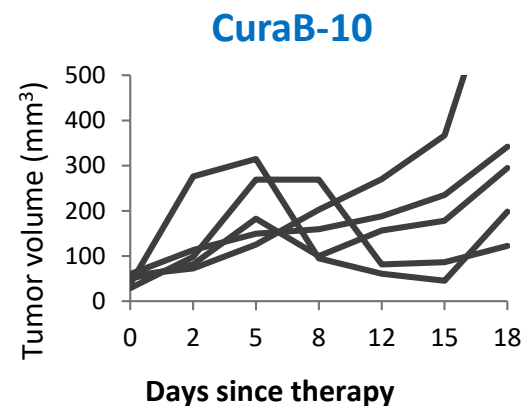
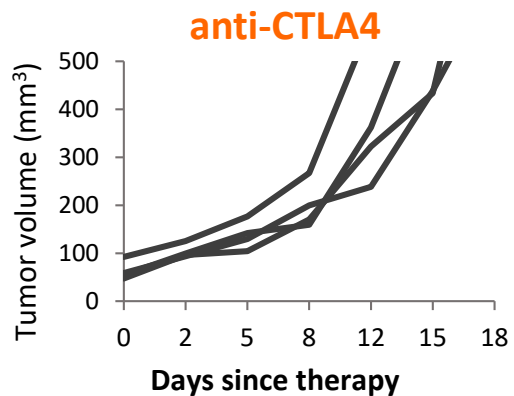
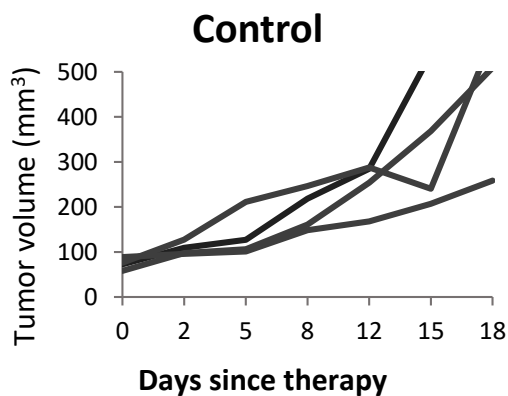
(Zhang et al., Science Adv. 2017; Basher et al, in submission)

## B16F10-sMIC melanoma syngeneic transplant tumor



# Preclinical Studies | CuraB-10 has synergy with FDA approved ICI

TRAMP-C2-sMIC transplant prostate tumor model



CuraB-10 synergizes with existing immunotherapies

# Competitive Landscape and IP Protection

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## Competitive Landscape

- Compared to **other Immuno-Oncology (IO) Therapies**
  - Novel biology and MOA
  - Defined predictive biomarker (sMIC) for responders
- Compared to **other a-sMIC antibodies** in-development
  - **Dual action MOA of CuraB-10** due to:  
non-blocking the function of membrane-bound MIC

## Intellectual Property and Licensing Status

- **CuraB-10** Composition of Matter and Method
  - Granted US patent (Oct 2017)
  - Pending world-wide patent application
  - In-license to CanCure completed
- **CuraB-10** combination with checkpoint inhibitors – Utility
  - PCT filed 2017
  - In license to CanCure in progress

# CuraB10: Program Overview

- An IND-enabling ready program
- US Patent granted for COM and method of use
- MOA identified – first in class opportunity
- Single agent efficacy in established tumor models
  - Prostate, Melanoma, Colon cancer,
  - Studies on going with broad cancer types: kidney, lung, head/neck and more
  - More combination studies on going
- Synergy with Approved IO therapy and IL-15 complex
- CMC – pilot manufacture completed by CRO
- Pilot toxicology study in NHP scheduled

## **Partnering/VC Fund Goals:**

To support CMC, IND-enabling toxicology and phase I clinical studies

# CanCure, LLC Team

## Senior Management



**Jennifer D. Wu, PhD**  
**President and Founder**

Professor, Northwestern University (NU)  
Previously Professor of MUSC, UW  
Lead a well-funded IO lab at NU  
Secured early-stage non-diluted funding



**Grant Risdon, PhD**

BD and Project Manager  
PhD in Immunology  
Many years of experience in IO industry



**Eddie Xing, MD**

Clinical Development  
Experience in both Pre-clinical  
and clinical development globally  
Successfully lead anti-PD1 antibody to  
clinical development in Henrui Inc. which  
lead to licensing to Incyte.

## Advisors



**Craig W Philips, MBA**  
COO, TKI Therapeutics  
Previously CTI, BMS



**Cassein Yee, MD**

Professor, MD Anderson  
Director, Melanoma  
Program



**Norm M Greenberg, PhD**

CSO, Atreca Inc.  
Previous Professor of MD  
Anderson, FHCRC  
Oncology Head and VP of  
Pfizer, MedImmune,  
Checkmate

# CONTACT

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# Thank You