

Get the best from endotoxins!

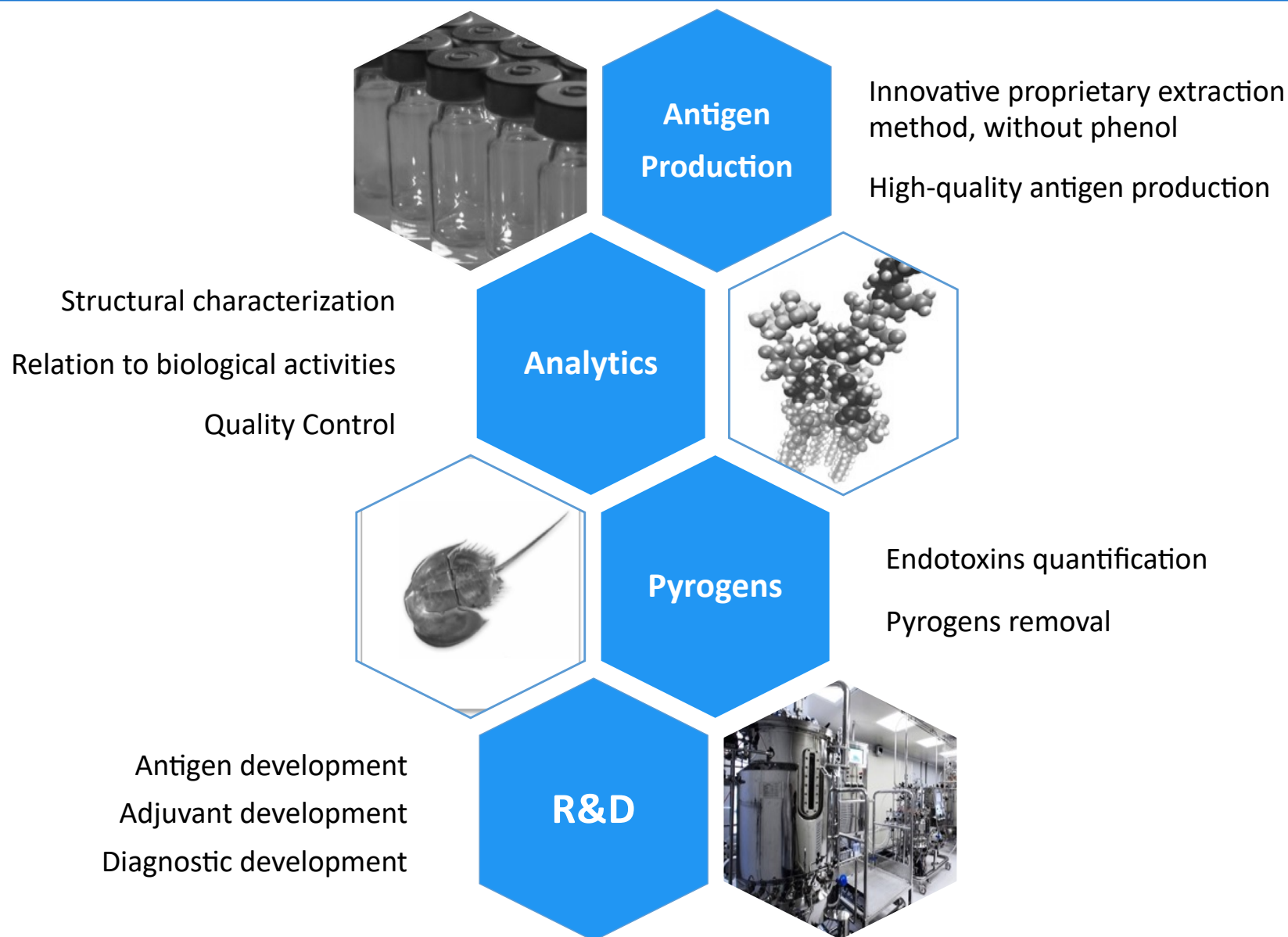


Bacterial antigens & Endotoxins expertise
for industrial applications since 2011

LPS-BIOSCIENCES

Production, analytics, quantification and much more...

2



Applications

3



Vaccine Industry

Cosmetics
Dermatology



In vitro Diagnostics

Medical devices



Our offering of custom services

Technologies available for Tech transfer



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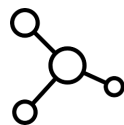
*Giving you access to the antigenic power of Endotoxins,
without their pyrogenic effects*



**Antigens production,
on demand**
Fast & tailor made

PRODUCTION

- **Antigens:**
LPS, PS, CAPS, LTA, TA
- **Methods:**
without Phenol
- **Quality:**
Pure (95%)
Ultra pure (99%)
- **Quantity:**
1 mg to 5 g



**Structural
Characterization**
Relevant information

ANALYTICS

- **Structural characterization:**
Lipid A structures
O-antigens structures
Structure to activities relationship
- **Methods:**
MALDI-MS, GC-MS, LC-MS2, NMR
- **Applications:**
Bacterial screening
Comparison with serovars
Specific epitope targeting
Toxicity level
OMV analysis



**Endotoxin quantification
& removal**
Efficient & implementable

REMOVAL

- **Quantification:**
LAL test (regulatory)
MAT test (regulatory)
LC-MS2 chemical quantifications
for complex samples
- **Removal:**
Consulting mission
Batch cleaning
Depyrogenation treatments

Contact us for any request concerning endotoxins

AWARDS: **bpi**france 2011: BPI Creation & development



2014: FUI collaborative projects



2016: CNRS Research against terrorism.

bpifrance 2017: BPI INNOV'up



2018: FEDER European grant for immunoadjuvants in vaccines and immunotherapy



2019: EU Women Innovators Prize

CONTACTS:



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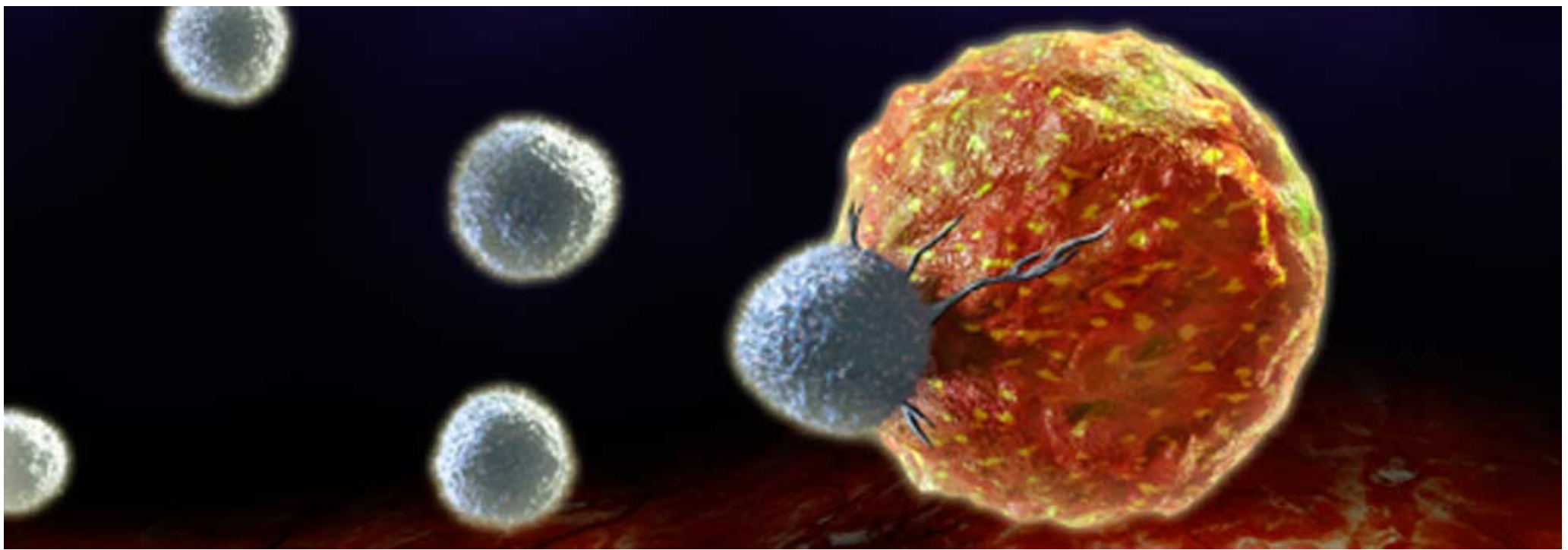


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Please visit our website: www.lpsbiosciences.com

CLIENTS & PARTNERS:





EU PRIZE for
WOMEN INNOVATORS
2019

ONCO-Boost- Innovative Immunotherapy platform

Developing the weapons we need to defeat cancer



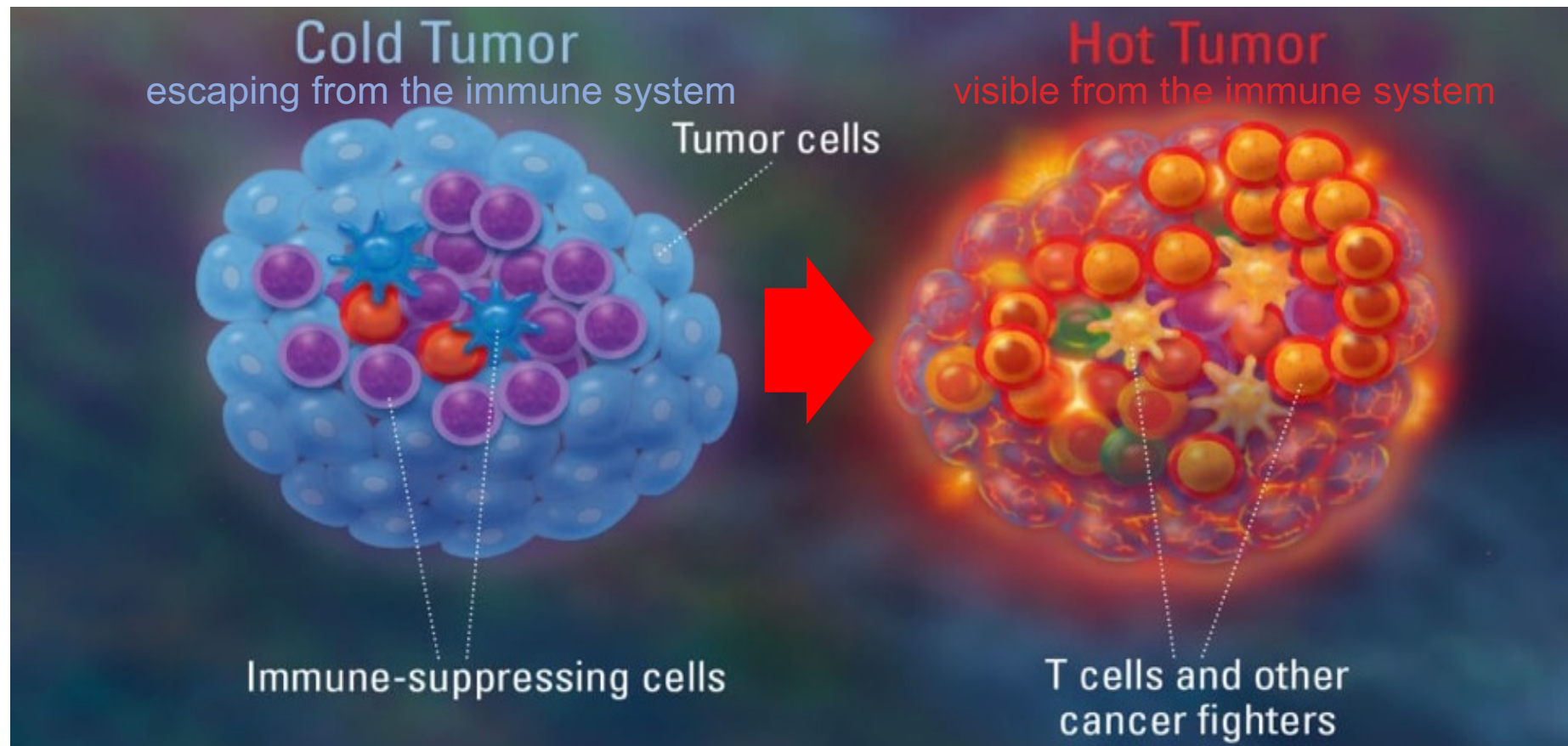
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Unmet need

Filling the gap in the low cure rate of immunotherapy

7

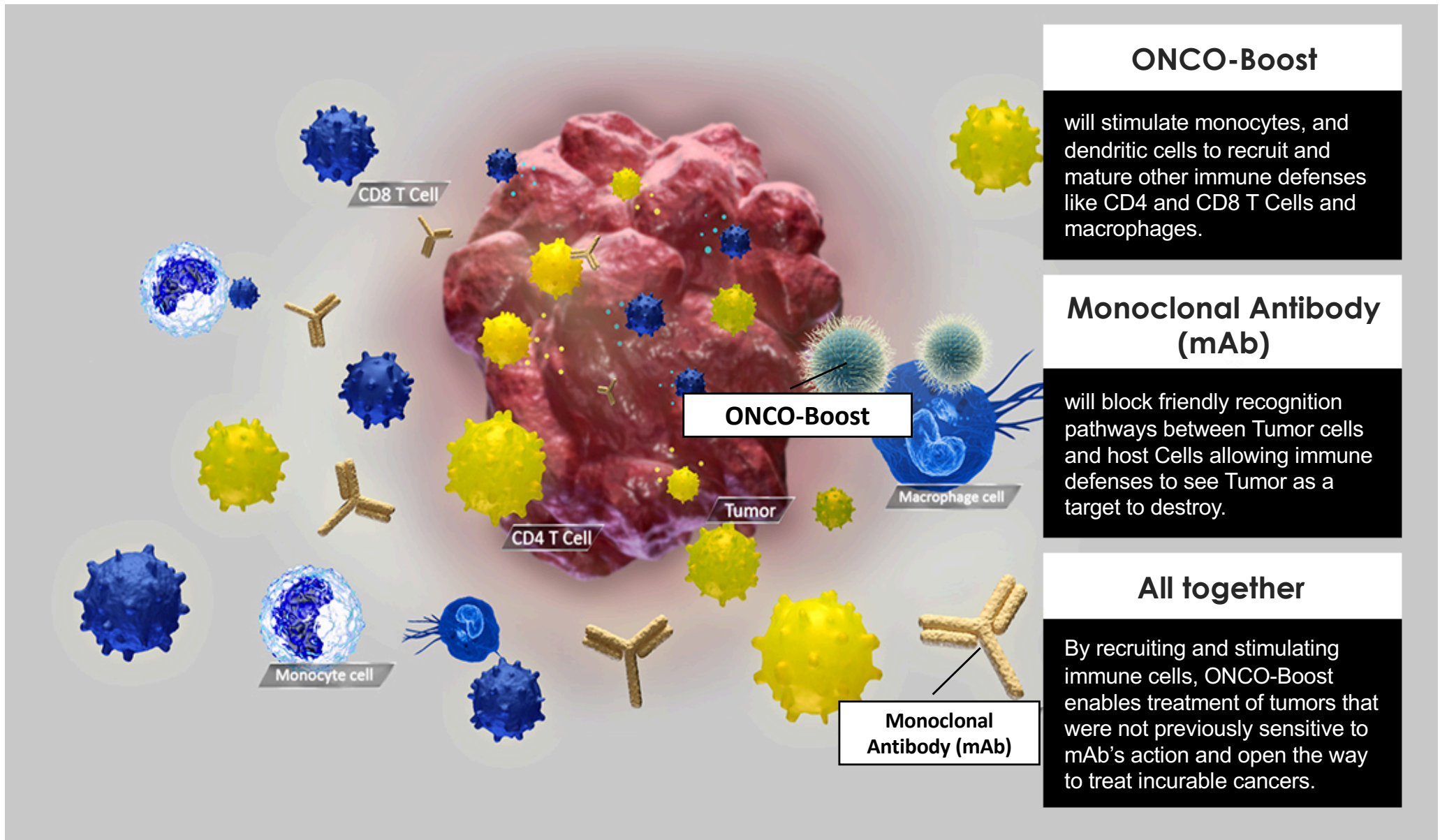
- ❑ Only 25% of patients respond to Immune Checkpoint Inhibitors (ICI)
- ❑ Only 10% of patients are successfully cured with immunotherapy (*Stanford Oncology 2017*)



Clinicians are looking for molecules turning cold tumors into hot tumors to make immunotherapy efficient

Solution

Mechanism of Action



Preclinical POC

Efficacy on 2 *In vivo* tumor models

9

Effect of Lipo-LPS in combination with Rituximab on tumor growth in follicular **B lymphoma** mice model

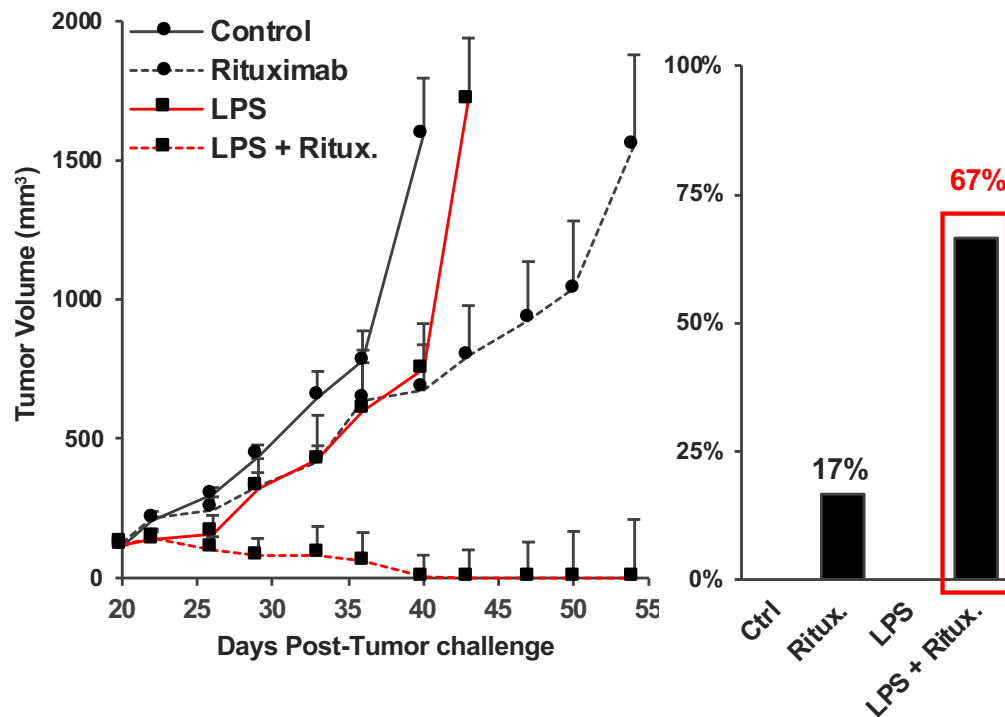


Effect of Lipo-LPS alone on tumor growth in **osteosarcoma** rat model



Tumor Growth in Rats

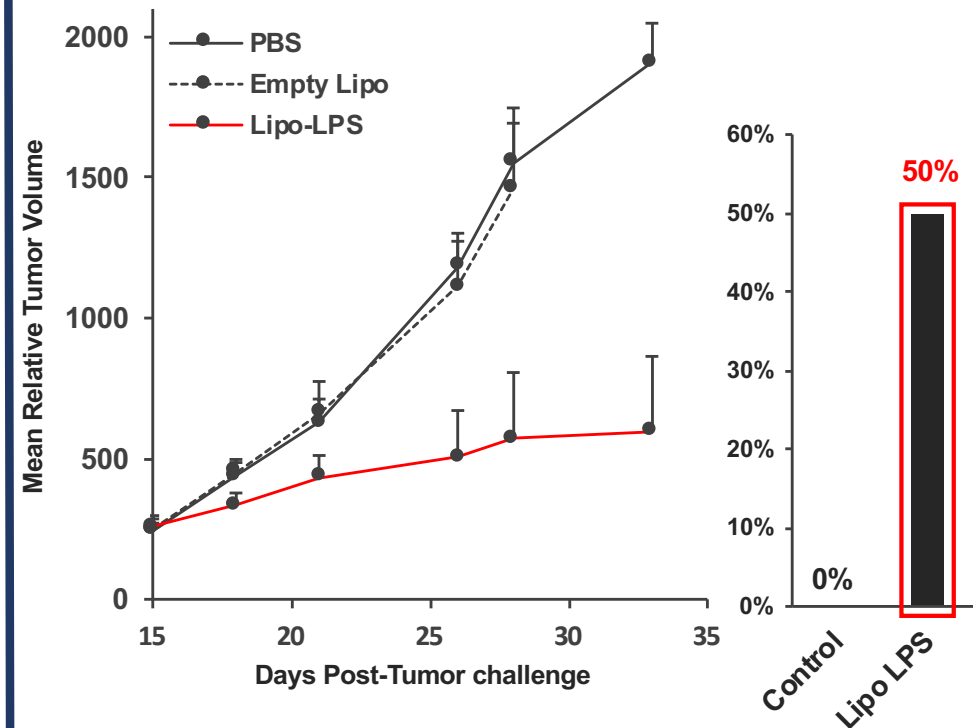
% CR at D54



67% of mice showed complete remission (CR)

Tumor Growth in Rats

% CR at D29



50% of the rats with complete remission (CR)

Contact us

Thank you for your attention

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AWARDS:

-  July 2018: EU FEDER development project
-  February 2019: WILCO Healthcare laureate
-  April 2019: EU H2020 SME Instrument Phase 1
-  May 2019: French Tech Seed Label
-  May 2019: EU Women Innovators prize
-  July 2019: BPI France iLab
-  Sept 2019: Cancéropôle CLARA (Collaboration CRCL)

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SUPPORTS:



WILCO



PULSALYS
SAIT LYON ST ETIENNE



bpi france



Horizon 2020
Programme