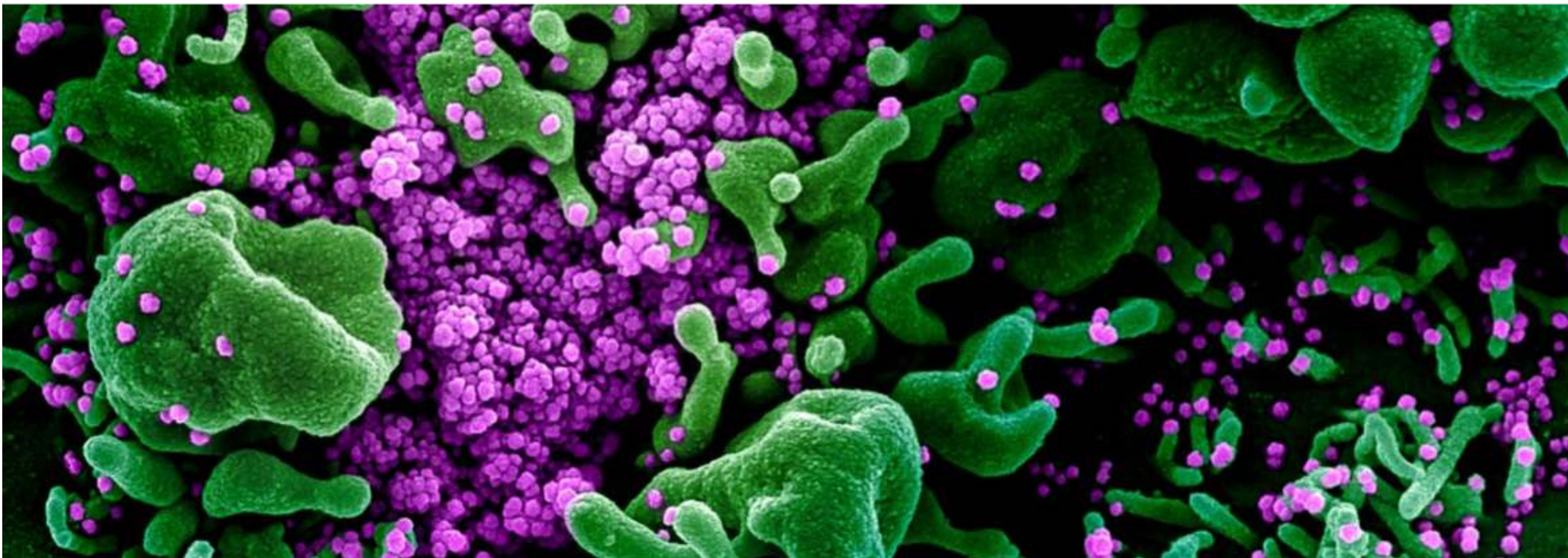


# Annual General Meeting

18 December 2020: 11 am Pacific

Call in 712-451-0011, 184171



- **Company overview**
- **SoRSE Collaborative Research Agreement**
- **Cannabinoids for coronavirus**
- **PAS-403**
- **Leukemia program**
- **Finances**
- **Board changes**
- **Adjourn**

# Pascal Biosciences, Inc.

We are a Vancouver and Seattle based biotech company committed to discovering and developing novel drugs for cancer



## Company overview

Founded in Vancouver BC with our development group in Seattle, WA

Public company on TSX Venture exchange: PAS



## Four scientific programs

- Cannabinoids for cancer
- PAS-403 for Glioblastoma
- Cannabinoids for Coronavirus
- Monoclonal for Acute Lymphoblastic Leukemia



## Experienced management and scientific team

Previous discovery and development of numerous approved products:

- HBV vaccine
- IFNalpha
- IFNgamma
- Idelalisib
- Lifitegrast
- Herceptin

Successful start-up of biotech companies:

- Lynx
- Nura
- Circuit Therapeutics
- SARcode
- Alkahest

# EXPERIENCED BOARD OF DIRECTORS



**Patrick W. Gray, PhD**

**Karoly Nikolich, PhD**

**Graeme I. Bell, PhD**

**Jens Biertumpel**

**Julie Eastland**

**Tom Gadek, PhD**

**Terry Pearson, PhD**

**Mike Shepard, PhD**

- **Challenging year for all, including Pascal**
- **SoRSE Collaborative Research Agreement**
  - Collaboration to work on cannabinoids for cancer
  - SoRSE pays Pascal \$750,000 over 15 months
- **Cannabinoids for coronavirus**
  - Discovery in July, confirmed with 3 additional assays
- **PAS-403**
  - Manufacturing process complete, patents moving forward
- **Leukemia program**
  - Grant application in process, Y-Biologics collaboration
- **Financing**
  - Initiated November
- **Board changes**

- **SōRSE and Pascal scientists are optimizing a cannabinoid formulation for patients**
  - PAS-393
  - Rapid absorption, efficient uptake
- **Complete Phase 1a in 15 months**
  - Healthy volunteers
- **Continue as co-development partners**
  - Phase 1b
  - Cancer patients on checkpoint inhibitors



Water-soluble emulsion technology for cannabinoids:  
Improving bioavailability, dosing, shelf-stability with safe ingredients

# Pascal – SoRSE collaboration



## **Pascal Biosciences:**

Cannabinoids have potential as therapeutics to restore immune recognition of tumor cells and potentiate immune checkpoint inhibitor effectiveness.

## **Sorse Technology:**

A novel emulsion technology enables aqueous formulation of cannabinoids, which improves efficacy and reduces toxicity in a cell-based biological assay.

- **Exclusive agreement to develop PAS-393 for cancer in a Phase 1a clinical trial**
  - \$50,000 / month for 15 months to Pascal
  - SoRSE pays development costs
  - Joint steering committee
  - Joint inventions determined by US Patent law
- **50:50 Partnership going forward for Phase 1b**
- **Project is on track**

# Cannabinoids Kill Coronavirus

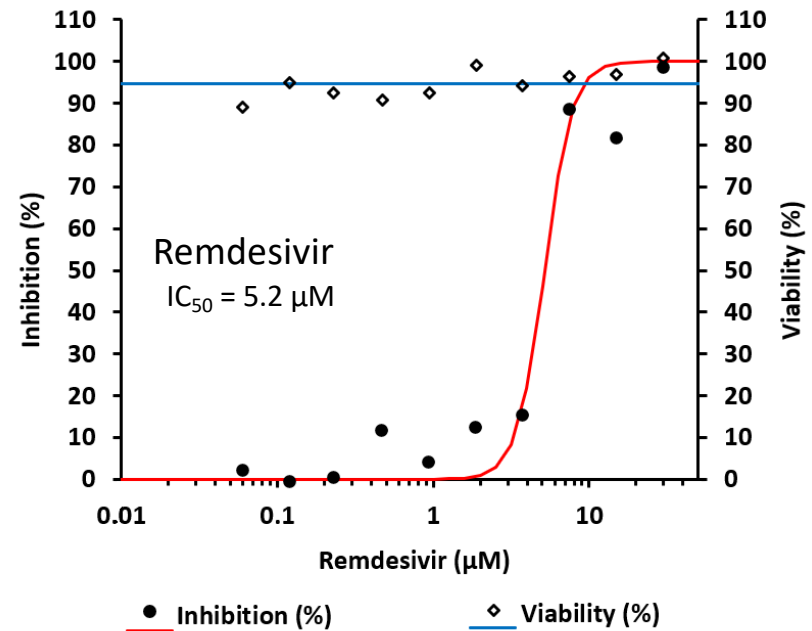
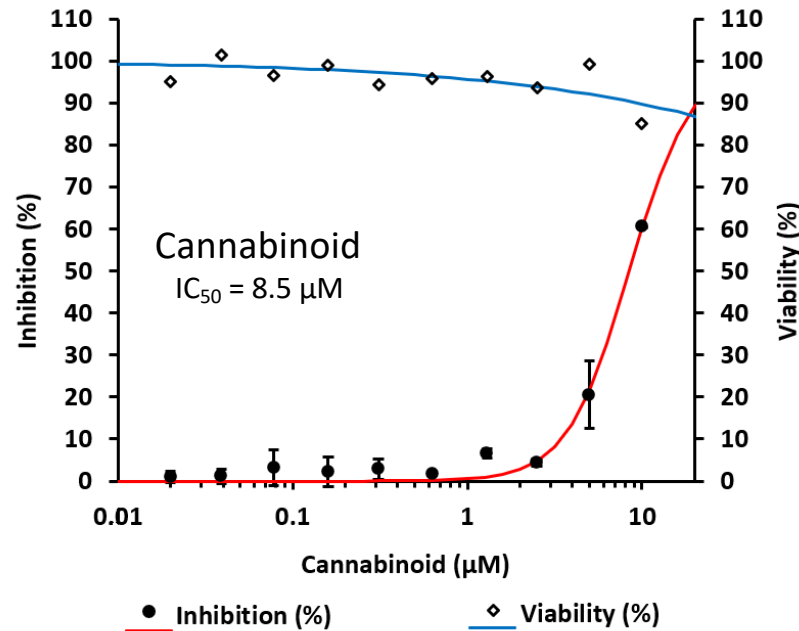


- Cannabinoids may limit the severity and progression of COVID-19
  - immunomodulatory and anti-inflammatory effects
  - block the uncontrolled release of cytokines seen in Acute Lung Injury
- Pascal scientists predicted an antimitotic agent like PAS-403 would block viral maturation
- All successful antiviral treatments—HIV, Hepatitis C—require a multi-drug cocktail
  - Could a cannabinoid + another antiviral (Remdesivir?) prove to be an effective cocktail?





# SARS-CoV-2 Cytopathic Effect Assay



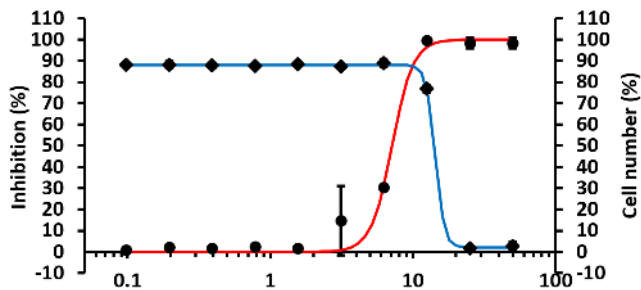
- Southern Research: Vero E6 cells challenged with SARS-CoV-2 Toronto strain for 72 hours
- Unchallenged cells were tested as a control
- PAS-403 had no antiviral activity
- Cannabinoid efficacy (8.5 µM) is similar to Remdesivir (5.2 µM)

# Pascal SARS-CoV-2 Antiviral Assays

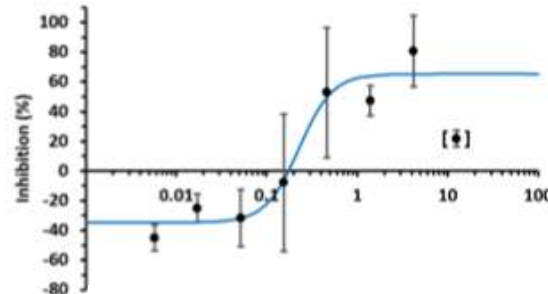


In four independent assays, Pascal has confirmed selected cannabinoids kill SARS-CoV-2 in cell culture

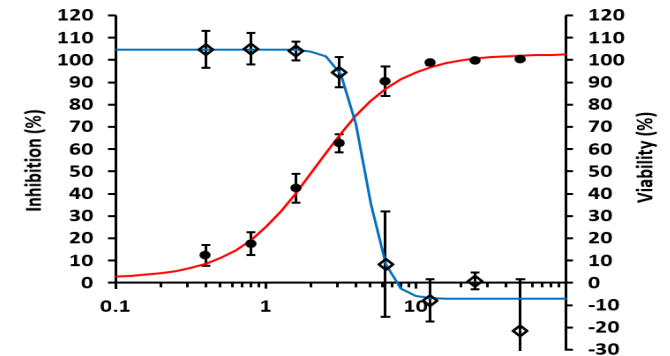
- Four different laboratories with distinct formats
- Activity similar to Remdesivir



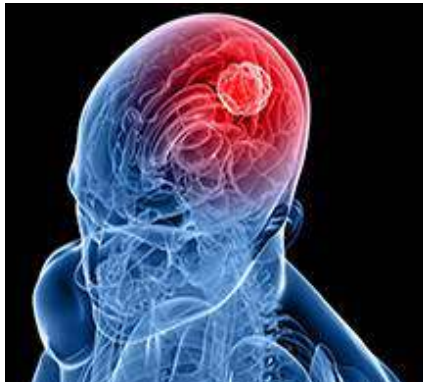
Institut Pasteur Korea



UW, Martins Lab



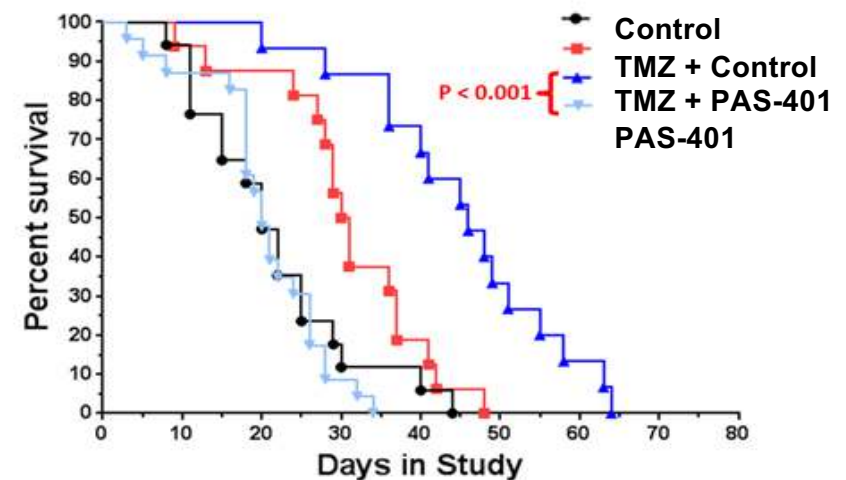
UW, Polyak Lab



## Glioblastoma

- Most aggressive brain cancer, 14 month median survival
- 15,000 new patients/year in North America, orphan drug indication
- Treatment: Surgery +/- radiation AND Temozolomide
  - Only chemotherapeutic drug for glioblastoma
  - DNA alkylating agent, FDA approved 1999
  - Extends survival 2-1/2 months
- Drug discovery for glioblastoma is very difficult

- PAS-403 is a potent microtubule disrupting agent
- Crosses the blood brain barrier
- Good bioavailability, half-life
- Process Development complete
- Kills patient-derived glioblastoma cells
- Synergy with Standard of Care in mouse model
- IND filing, Phase 1 clinical trial planned



# Pre-BCR

*a hyper-specific target for acute lymphoblastic leukemia*



## Target Summary

- The B cell Receptor (BCR) is the cell surface protein specific for early B cell development
- Natural expression limited to pre-B cells
- Expressed in >90% of patients with Acute Lymphoblastic Leukemia (ALL)
- Expression also observed in subsets of AML and B cell lymphomas



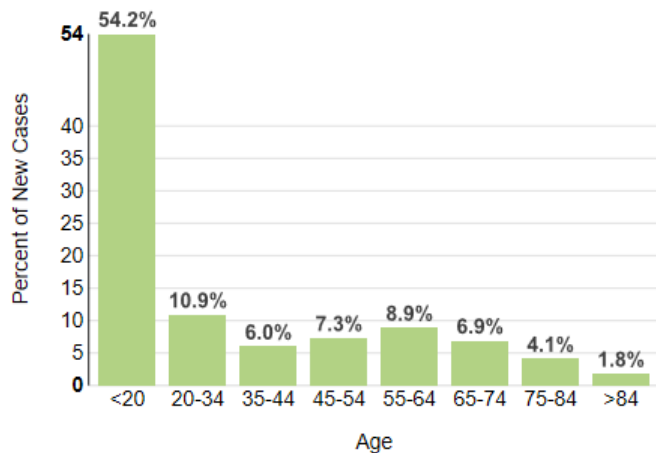
## Biological Rationale

- Antibodies targeting the pre-BCR will eliminate leukemic cells while sparing the immune system

# Acute Lymphoblastic Leukemia



Percent of New Cases by Age Group



## Acute Lymphoblastic Leukemia

- 5930 new cases and 1500 deaths projected for 2019 in the U.S.
- 54% of diagnoses in children <20 years of age
- 75-80% of all leukemias in children
- 85% survival in children, but chemotherapy is very difficult
- 20-40% in adults (worsens with age)

## Targeted, safer therapy is clearly needed

- Pascal has potent monoclonal antibodies for ALL
- Y-Biologics (South Korea) and Pascal scientists will collaborate on the development of bispecific antibodies for leukemia
- Pascal has also applied for grant funding and will test our drug in mice soon



# Finances

From Smyth  
CPA, our  
independent  
auditor's report.

This can also  
be found at  
[www.sedar.com](http://www.sedar.com)

As at November 30		2019	2018
	Notes		
<b>ASSETS</b>		\$	\$
<b>Current</b>			
Cash and cash equivalents	4	361,385	3,644,582
Prepaid expenses		27,531	109,912
Receivables		14,307	13,723
Assets held for sale	14	45,312	-
<b>Total current assets</b>		<b>448,535</b>	<b>3,768,217</b>
<b>Non-current assets</b>			
Equipment	5	6,946	49,870
<b>Total assets</b>		<b>455,481</b>	<b>3,818,087</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Accounts payable and accrued liabilities	9	60,346	226,698
Liabilities held for sale	14	51,099	-
<b>Total liabilities</b>		<b>111,445</b>	<b>226,698</b>
<b>SHAREHOLDERS' EQUITY</b>			
<b>Equity attributable to shareholders</b>			
Share capital	6	11,805,621	11,805,621
Reserves	6	1,115,120	1,161,341
Deficit		(12,576,705)	(9,375,573)
<b>Total shareholders' equity</b>		<b>344,036</b>	<b>3,591,389</b>
<b>Total liabilities and shareholders' equity</b>		<b>455,481</b>	<b>3,818,087</b>

## Contact Information



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[kegan@pascalbiosciences.com](mailto:kegan@pascalbiosciences.com)



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