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ASX: ALA

# ANNUAL GENERAL MEETING

December 2021

# Experienced Senior Leadership Team

## Paul Hopper

### CHAIRMAN

Over 25 years experience in the medical, healthcare & life sciences sectors. Focussed on start-up and rapid growth companies, he has served as either Founder, Chairman, non-executive director or CEO, of more than fifteen companies in the US, Australia and Asia. Mr Hopper has founded, or technology seeded, six companies on the ASX and Nasdaq.

## Dr. Michael Baker

### CEO & MANAGING DIRECTOR

Over 15 years experience in scientific research, drug development and venture investing sectors. He was an Investment Manager with the leading Australian life science fund, BioScience Managers. He also conducted due diligence to shortlist investment opportunities and played an active role in managing portfolio companies.

## Dr. Debora Barton

### DIRECTOR

Over 20 years of oncology experience, in academia, as a practicing physician and in the biotechnology / pharmaceutical industry. Served in key senior executive positions, including Carisma Therapeutics where Dr. Barton is currently the Chief Medical Officer, Iovance Biotherapeutics and Advanced Accelerator Applications, acquired by Novartis during Debora's tenure.

## David Simmonds

### DIRECTOR

David was a senior audit partner with Ernst & Young from 1989 to 2017. From 2008 to 2013, David led the Capital Markets desk in Australia with responsibility for overseeing or reviewing all Australian cross border fundraisings. David was a member of the Board of MS Research Australia.

## Dr. Liz Stoner

### DIRECTOR

Dr. Stoner is a distinguished biopharma executive, who brings decades of international industry experience to her role, including senior roles in Clinical Development Operations at Merck Research Laboratories. Liz is an Executive Partner at MPM Capital, and she has held numerous leadership roles at MPM portfolio companies. Liz was previously an Assistant Professor of Paediatrics at Cornell University Medical College.

## David Phillips

### DIRECTOR

Senior Business Development Executive with over 35 years in the healthcare industry. Including 23 years in GSK, 12 years in Biotech and as Managing Partner of SR One (GlaxoSmithKline's Corporate Venture Fund). During this period Mr Phillips was a member of the investment committee reviewing greater than 30 deals. David has been responsible for over 50 Pharma/Biotech deals and 10 M&A transactions.

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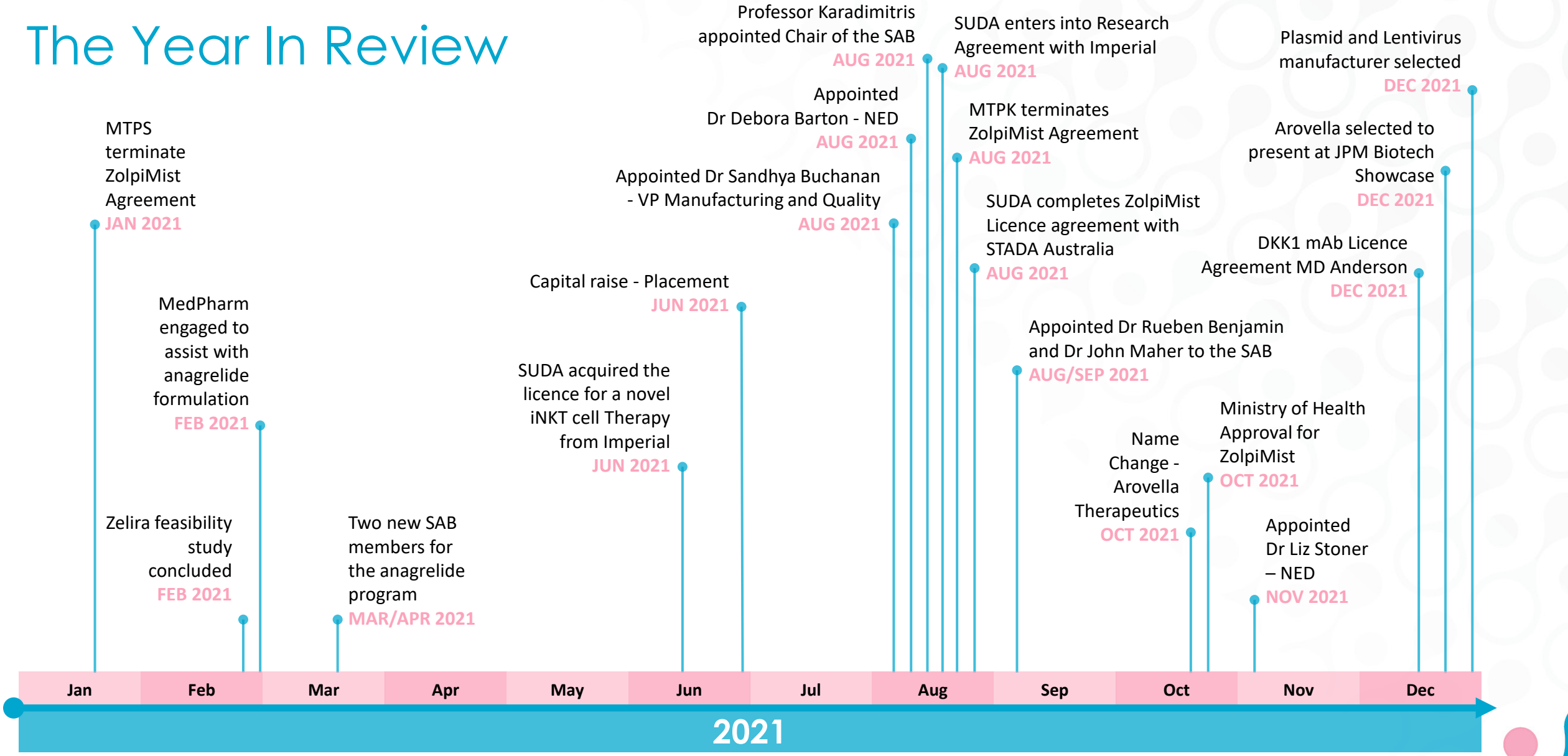
# The Year In Review



# Arovella Company Overview

## Financial Snapshot

| ASX CODE | ALA |
|---|---|
| Market capitalisation[1] | $19.2 million |
| Shares on issue | 480.82 million |
| 52-week low / high | $0.033 / $0.075 |
| Cash (30 September 2021) | $5.1 million |

## Major Shareholders

| Shareholder | Ownership (%)[1] |
|---|---|
| ZERRIN INVESTMENTS PTY LTD | 16,010,000 (3.33%) |
| UBS NOMINEES PTY LTD | 15,064,640 (3.13%) |
| DYLIDE PTY LTD | 12,500,000 (2.60%) |
| KAMALA HOLDINGS PTY LTD | 11,500,000 (2.39%) |
| CHELSEA INVESTMENTS PTY LTD | 10,000,000 (2.08%) |


1. *As of 15 December 2021*

# Introducing Arovella Therapeutics

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Committed to helping people live longer and healthier lives

ASX: ALA

Realising the Potenital of Invariant Natural Killer T Cell Therapies

iNKT Cell Therapy

Developing low-risk oral sprays to reformulate existing pharmaceuticals

OroMist®

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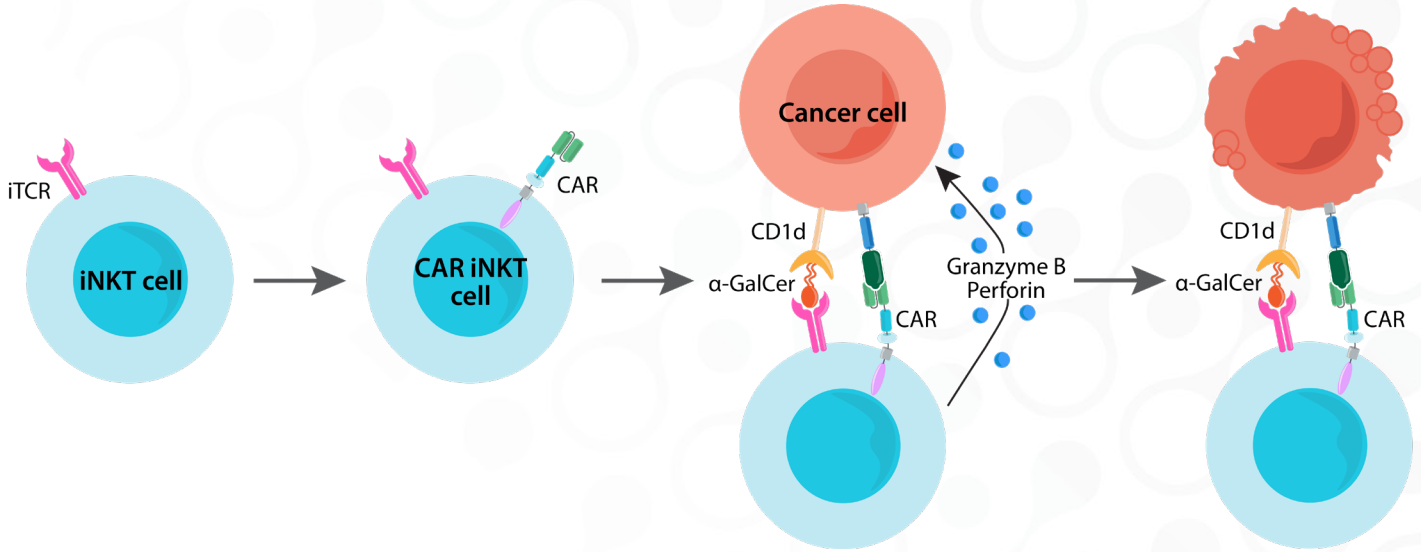
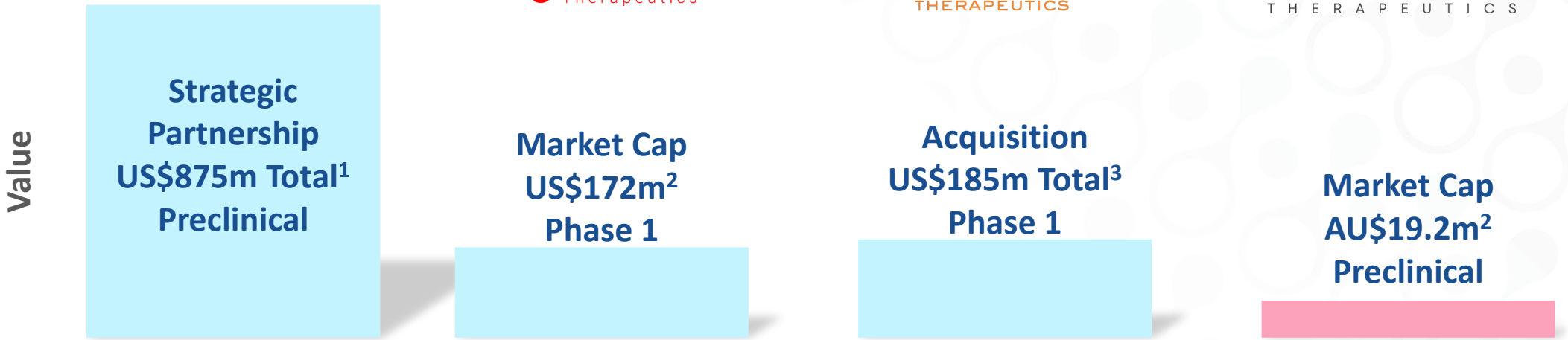
# iNKT Cell Therapy A Transformational Deal

- The iNKT cell therapy platform is at the cutting edge of cancer treatment
- The technology was developed by Professor Karadimitris at Imperial College London – a top 10 university
- Arovella is one of four companies worldwide and the only ASX-listed company working with this cell therapy platform
- The preclinical work demonstrates that for cancers that produce CD1d, introduction of a chimeric antigen receptor, makes this superior to conventional cell therapies
- The iNKT cell therapy can be administered off-the-shelf as iNKT cells do not cause graft versus host disease
- This is a genuine platform for Arovella to build out to tackle multiple cancer types and different diseases




*Imperial College London*

# Commercial Activity for iNKT Cell Players




**May 2021 –** Appia Bio raised US$52m in their Series A

**August 2021 –** Appia Bio entered into Strategic Partnership with Kite Pharma - US$875m deal value

**October 2021 –** MiNK Therapeutics listed on the Nasdaq raising US$40m, currently valued at US$172m[1]

**May 2021 –** Kuur Therapeutics was acquired by Athenex for US$70m upfront and US$115m milestone payments

**June 2021 –** Acquired the licence to its iNKT cell therapy platform from Imperial College London

**December 2021 –** Acquired the licence to the DKK1 technology from MD Anderson Cancer Center

1. https://www.gilead.com/news-and-press/press-room/press-releases/2021/8/kite-and-appia-bio-announce-collaboration-to-research-and-develop-allogeneic-cell-therapies-for-cancer
2. As of 15 December 2021
3. https://ir.athenex.com/news-releases/news-release-details/athenex-acquire-kuur-therapeutics-expand-cell-therapy

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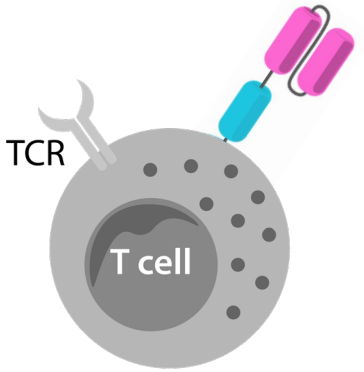
# Expanding the Platform DKK1 mAb from MD Anderson

- The DKK1 mAb was developed at MD Anderson and can be incorporated into a chimeric antigen receptor (CAR)
- DKK1 is increased in many cancer types[1]
  - Multiple myeloma (Blood Cancer)
  - Pancreatic cancer
  - Breast cancer
  - Lung cancer
- Too much DKK1 can indicate poor overall survival and shorter disease-free survival [1]
- This is a new tumor antigen that extends the limited set of targets for blood cancers and solid tumor CAR therapy
- The target is differentiated from others by its presence across numerous cancer types
- DKK1-CAR-T cells display activity against blood cancer and solid tumours

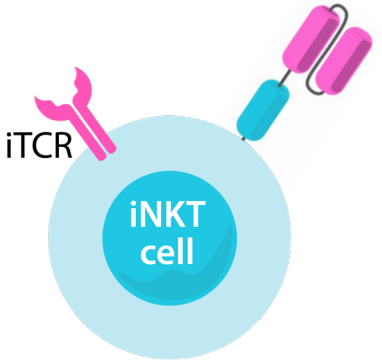
## Already Completed




**DKK1-CAR-T cells**

Multiple Myeloma ✓
Pancreatic Cancer ✓
Lung Cancer ✓
Breast Cancer ✓

## Arovella To Complete




**DKK1-CAR-iNKT cells**

Multiple Myeloma
Pancreatic Cancer
Lung Cancer
Breast Cancer

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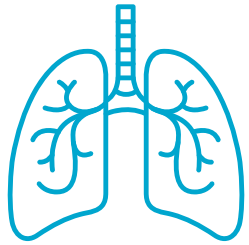
# DKK1-CAR-T Cells Work Against Many Cancers

**Multiple Myeloma[1]**

34,900 cases in the US per annum

55.6% 5-year survival rate



**Lung Cancer[2]**

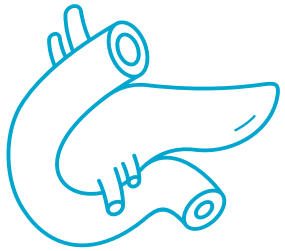
235,760 cases in the US per annum

21.7% 5-year survival rate

**Triple Negative Breast Cancer[3,4]**

28,150 cases in the US per annum

76.9% 5-year survival rate



**Pancreatic Cancer[5]**

60,400 cases in the US per annum

10.8% 5-year survival rate


1. *https://seer.cancer.gov/statfacts/html/mulmy.html*
2. *https://seer.cancer.gov/statfacts/html/lungb.html*
3. *https://seer.cancer.gov/statfacts/html/breast-subtypes.html*
4. *https://www.cancer.org/cancer/breast-cancer/about/types-of-breast-cancer/triple-negative.html*
5. *https://seer.cancer.gov/statfacts/html/pancreas.html*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# CAR-iNKT Cell Therapy Development


- Enter into Research Agreement with Imperial College London ✓
- Recruit cell therapy manufacturing expert – Dr. Sandhya Buchanan ✓
- Recruit domain expertise board members – Dr. Debora Barton & Dr. Liz Stoner ✓
- Expand Scientific Advisory Board – Prof. Tassos Karadimitris (Chair); Dr. Reuben Benjamin; Dr. John Maher ✓
- Acquire the license to another complementary CAR ✓
- Select GMP manufacturer for plasmid and lentivirus for CAR19 ✓
- Select GMP manufacturer to produce CAR19-iNKT cells
- Expand the cell therapy team
- Expand the Scientific Advisory Board
- Confirm Safety and Specificity of the DKK1-CAR
- Combine the DKK1-CAR with the iNKT cell therapy platform
- Include DKK1-CAR-iNKT cells in models for multiple myeloma, and potentially solid tumours
- Prosecute patents for the iNKT cell therapy platform and DKK1-CAR
- GMP manufacturing of plasmid, lentiviral vector and CAR19-iNKT cells for phase 1 clinical trial
- FDA pre-IND meeting for CAR19-iNKT
- FDA IND clearance  for CAR19-iNKT
- Dose first patient in Phase 1 clinical trial for CD19 producing cancers
- Acquire the license to additional CARs complementary to the iNKT cell therapy platform

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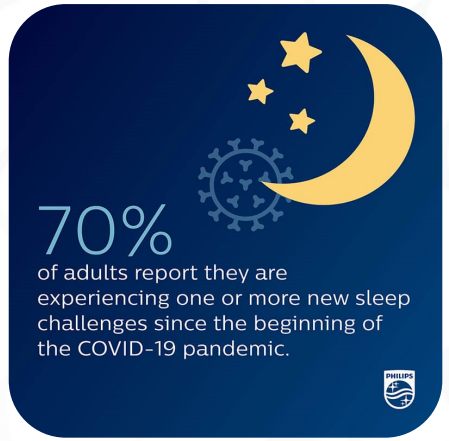
# ZolpiMist® - Short-term Insomnia

- ZolpiMist is Arovella's oral spray version of the insomnia drug Ambien/Stilnox, Sanofi's blockbuster[1]
- Short-term insomnia has an estimated prevalence of 9.5% in the US[2]
- Sleep problems rose from 16% to **25%** during the COVID-19 pandemic (University of Southampton)[3]
- ZolpiMist is approved and ready to be commercialised in Australia (STADA) and Chile (Teva)
- Current Licensee populations:
  - Teva: ~350 million (Brazil, Chile and Mexico)
  - STADA: ~25 million (Australia with an option for New Zealand)
- Discussions with additional territories are underway





1. *Arovella holds the licence for ZolpiMist outside of North America*
2. *https://www.ajmc.com/view/insomnia-overview-epidemiology-pathophysiology-diagnosis-and-monitoring-and-nonpharmacologic-therapy*
3. *https://www.southampton.ac.uk/news/2020/08/sleeploss-lockdown.page*

# Arovella Therapeutics Pipeline

## Cell Therapy

| | INDICATION | DISCOVERY | PRECLINICAL | PHASE 1 | PHASE2/3[1] | PARTNER |
|---|---|---|---|---|---|---|
| ALA-101 (CAR19-iNKT) | **CD19 expressing cancers** | CD19 Expressing Lymphoma | | | | |
| ALA-102 | **Not Disclosed** | ND | | | | |
| ALA-103 | **Not disclosed** | ND | | | | |
| ALA-104 (DKK1-CAR-iNKT) | **Multiple Myeloma** | Multiple Myeloma & Solid Tumours | | | | |

## OroMist

| | INDICATION | REFORMULATION | PRECLINICAL | CLINICAL | COMMERCIAL | PARTNER |
|---|---|---|---|---|---|---|
| ZolpiMist®[2] | **Short-term insomnia** | Short-term insomnia | | | | Teva[3] STADA[4] |
| ALA-001 (Sumatriptan) | **Migraine** | Migraine | | | | Strides |
| ALA-018 (Anagrelide) | **Solid tumours & thrombocytosis** | Solid Tumours | | | | |
| ALA-021 (Pharma grade Cannabis) | **DRE[5], melanoma, motion sickness** | Multiple | | | | Cann Pharma Australia |
| ALA-023 (Not disclosed) | **Not Disclosed** | ND | | | | Sanofi |

1. *Phase 3 trial may not be required if Phase 2 is a registrational trial*
2. *ZolpiMist has been approved by the Ministry of Health (Chile), TGA (Australia) and the FDA (US) and Arovella holds the rights to ZolpiMist outside of North America*
3. *Arovella is assisting TEVA with regulatory submission and commercialisation efforts*
4. *STADA have the license to commercialise ZolpiMist in Australia*
5. *DRE – Drug Resistant Epilepsy*

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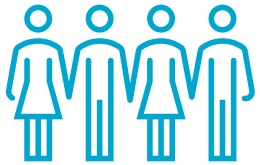
# Arovella Therapeutics Summary



## World Class Leadership

Arovella has a leadership group with extensive drug development experience, particularly cell therapies

## Two Transformational Deals

Arovella has licenced in a unique platform and an additional CAR from two world leading research institutes

## Unique ASX Listed Cell Therapy

Arovella is the only ASX-Listed company working on an iNKT cell therapy platform and the only company worldwide working with a DKK1-CAR to target cancers

## Growth Trajectory

Arovella will continue to build out its platforms and look to recruit world class individuals to join the fight against our target diseases

## Acquire New Technologies

The team at Arovella has deep expertise at sourcing, evaluating and acquiring new technologies, which we will continue to leverage

## Product in Market in 2022

Our most advanced product, ZolpiMist, is expected to be in market in Australia and Chile in CY 2022

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# Q & A

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# Thank You

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CEO & Managing Director

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Mobile: +61 403 468 187

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# Committed to helping people live longer and healthier lives

**Patient-Centric**
It starts with the end in mind. In our case, it is our patients.
At Arovella, we are invested in making a positive difference in helping patients live longer and healthier lives. Creating a brighter future for people is our driving force.

**Data-driven and Milestone Focused**
Behind all life-changing therapies is excellent, ground-breaking science. We utilise data to shape our decisions to enable us to reach our set milestones

**Accountable, Honest and We Act With Integrity**
Our mission of helping patients focuses us. We hold ourselves to account for our actions. We strive to do what is right for all of our stakeholders.

**We Are Persistent and Never Give Up**
Drug development is a challenging arena. We are committed to our mission of helping patients, and we will continue to push each other through positive and challenging times in the pursuit of developing life-changing therapeutics.

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