Cortical Dynamics Limited
ACN 107 557 620

Financial Report 30 June 2019

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Directors

David Breeze Gary Todd Bruce Whan David Liley

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Auditor

HLB Mann Judd Level 4 130 Stirling Street PERTH WA 6000

Australian Business Number

88 107 557 620

Share Registry

Advanced Share Registry Limited 110 Stirling Highway NEDLANDS WA 6009

Cortical Dynamics Limited

The directors of Cortical Dynamics Limited ("Cortical Dynamics" or the "company") present their report on the company for the financial year ended 30 June 2019.

Directors

The names of directors in office at any time during or since the end of the year are:

Name	Date Appointed	Date Resigned
David Breeze	9 November 2004	Current
Bruce Whan	8 January 2004	Current
David Li l ey	18 November 2015	Current
Gary Todd	16 October 2018	Current

Company Secretary

Mr David Breeze was appointed Company Secretary on 23 November 2016. He has many years' experience in the management of listed entities.

Principal Activities

The principal activity of the economic entity during the financial year was the development of the Brain Anaesthesia Response Monitor (BARM) which is based on an algorithm able to measure patient brain activity during surgery to assist in maintaining optimal drug dosage.

Operating Results

Operating loss for the company after tax for the year was \$890,686 (2018: loss of \$592,252).

Dividends

The directors recommend that no dividend be paid in respect of the current period and no dividends have been paid or declared since the commencement of the period.

Review of Operations

Cortical Dynamics Ltd announced a number of significant advances during the period which included:-

Principal Activities

Company Focus-Cortical_BARM Technology

"Calibrating anaesthetic monitoring to the individual rather than the average, results in better patient outcomes and is focused on saving time, money and lives."

Cortical is an Australian based medical device technology company that has developed an industry disruptive brain function monitor independently described as "a paradigm busting technology from an Australian based device house that really gives a significant advantage in this space". Its competitive advantage has been recognised by leading world experts in anesthesia. Cortical has received both TGA approval and the CE mark and has now commenced its sales campaign.

The core product, the Brain Anaesthesia Response Monitor (BARM), was developed to better detect the effect of anaesthetic agents on brain activity, aiding anaesthetists in keeping patients optimally

Cortical Dynamics Limited

anaesthetised. The product is focused on integrated distribution with the leading global brands in operation theatre monitoring equipment.

The approach used is fundamentally different from all other devices currently available in the market in that its underlying algorithm produces EEG indexes which are directly related to the physiological state of the patient's brain. Such monitoring is gaining significant use during surgery, however even with the use of EEG monitors, it is not uncommon for there to be a critical imbalance between the patient's anaesthetic requirements and the anaesthetic drugs administered. While a number of EEG monitors are commercially available, one that is reliably able to quantify the patient's anaesthetic state is still desperately needed.

To date, all of the existing EEG based depth of anaesthesia monitors operate in the context of a number of well documented limitations: (i) Inability to monitor the analgesic effects; and (ii) Not all hypnotic agents are reliably measured.

The above limitations highlight the inadequacies in current EEG based depth of anaesthesia monitors, particularly given surgical anaesthesia requires both hypnotic and analgesic agents (and muscle relaxants).

The global brain monitoring market is poised to grow to reach \$1.6 billion by 2020. Around 312 million major surgical procedures requiring anaesthesia are undertaken every year worldwide (WHO 2012.) The pain monitoring market is valued at over \$8.6 billion. per annum by 2022. (www.grandviewresearch.com/industry-analysis/pain-management-devices-market-April 2016)

Initial marketing will focus on Total Intravenous Anaesthesia (TIVA), a method of inducing and maintaining general anaesthesia without the use of any inhalation agent. This is becoming more widely accepted, particularly in Western Europe. Approximately 29 million major general surgery general anaesthesias are conducted in the European Union each year, of which 55% (circa 16 million) are balanced anaesthesia (using a combination of intravenous agents such as propofol and volatile gases) and 20% are total intravenous anaesthesia using propofol. This creates a market opportunity of between \$83m to \$229m to Cortical in the European Union alone.

"The use of EEG-based depth of anaesthesia monitors has been recommended in patients receiving total intravenous anaesthesia because it is cost effective and because it is not possible to measure end-tidal anaesthetic concentration in this group" (source: nice.org.uk).

Cortical's technology has a versatility that goes beyond depth of anaesthesia and may be applied to other EEG based markets, such as neuro-diagnostic, drug discovery, drug evaluation and the emerging Brain computer Interface (BCI) market.

There are considerable opportunities offered by subsequent expansion of the company's core technology through developing the product to carry out additional functions including neuro-diagnostics of changes in brain and memory functions to provide early warning of degenerative diseases, pain response and tranquiliser monitoring for trauma patients in intensive care units.

While the current array of bedside monitoring and imaging systems in the critical care environment has led to dramatic reductions in mortality, they do not as yet involve the continuous monitoring of brain function. This is widely acknowledged to be a major problem, as the care and management of the critically ill patient is ultimately all about the brain.

The continuous monitoring of a patients' brain state is not only necessary to diagnose and manage acute deteriorations in brain function that may have long lasting effects, but also to aid in the optimal administration of sedation and analgesia. Sedation and analgesia in the critically ill patient plays a pivotal role in their care and is necessary to minimize patient distress and agitation, being essential to

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facilitate the utility of a wide variety of life support equipment and procedures, the most important of which is mechanical ventilation.

Study after study has shown that too deep sedation increases the time on mechanical ventilation, which leads to increases in mortality, the incidence of complications and treatment costs. Given these acknowledged advantages to brain function monitoring in the ICU why then is it not currently available.

There are two main reasons for this:

- 1. Firstly, the size and the complexity of configuration of most approaches to monitoring brain function are simply not capable of being adapted for use in the busy and crowded ICU environment.
- 2. Secondly, in those monitoring approaches that could be potentially deployed at the bedside, they depend on physiologically uncertain principles of operation that are not relevant, or meaningfully interpretable, in the context of the critically ill patient.

Cortical aims to address both these limitations by the further development and trialling of the novel bedside and remotely deployable Australian manufactured and designed, electroencephalographically based (EEG-based), BARM system. The BARM is configured to efficiently image and display complex information related to the clinically relevant state of the brain.

The BARM is not only expected to address the shortcomings of these EEG-based DoA approaches, and thus realise their documented promise, but to extend the functionality of bedside EEG monitoring to the objective monitoring of pain, a measure also vital to the management of the sedated mechanically ventilated critically ill patient.

In Australia between 2015 and 2016 there were approximately 149,000 admissions to ICU of which 48,000 required continuous ventilatory support (CVS) and thus required sedation, pain relief and who would have potentially benefited from an instrumental approach to imaging brain activity. Given that the average patient time on CVS was 96 hours in Australia, this equates to potentially 4.5 million hours of instrumental monitoring and approximately a quantity of 188,000 of 24-hour single patient-use sensors to image brain activity. In the USA, based on 1.5 million ICU patients (30% CVS) requiring CVS, and given that the first episode of an average patient time on CVS is 96 hours, this equates to 144 million hours of instrumental monitoring and approximately a quantity of 6 million of 24-hour single patient use sensors to image brain activity. The European Union (EU), based on similar statistics to USA, there would be an estimated 5 million single patient use sensors, used per annum. Total market opportunity per annum of the US, Western Europe and Australian markets only, would be approximately 11.188 million 24-hour single-use patient sensors per annum, which with an average cost of \$AU20 per single patient use sensor, would represent a total revenue stream conservatively estimated to be of the order of \$AU223.8 million per annum.

The BARM system is protected by five patent families in multiple jurisdictions worldwide consisting of 22 granted patents. Cortical will continue to drive the development of the BAR monitor, maintain its intellectual property and concentrate on obtaining regulatory approval for the BAR monitor.

Cortical has now commenced preparations for a sales program of the device in Europe, Australia, New Zealand and further development is also underway in Korea and China. A USA based distributorship is expected to follow.

Cortical's Brain Anesthesia Response Monitor ('BARM") has now been used in further successful trials at Strathfield Private Hospital in Sydney. Strathfield is part of the Ramsay private hospital group.

Cortical announced a number of developments during the period which included:-

- On 16 October 2018 Mr. Gary Todd was appointed as Managing Director of BPH investee Cortical. Mr Todd has extensive sales experience gained over the last thirty years both in Australia and internationally in Medical Devices, FMCG and IT&T markets
- Sydney Adventist Private Hospital in Sydney trialled the Brain Anaesthesia Response Monitoring System known as "BARM" during the first two weeks of July 2019 and positive comments were received from all four anaesthetists that trialled BARM
- LiDCO Ltd UK is currently trialling the "BARM" at Southampton University Hospital through September/October 2019. In the UK, the LiDCO Group enjoys a leading market share, with over 50% of NHS acute care hospitals using its technology.
- Successful trials of the BARM were carried out during 2018 and continue to be used at St. Luke's Private Hospital and Strathfield Private Hospital in Sydney. Strathfield is part of the Ramsay Hospital Group. The trials were conducted by Dr Adrian Sultana MD FRCP (Glasg) FANZCA, a consultant anaesthetist. He is a Clinical Lecturer in Anaesthesia at the Australian School of Advanced Medicine, Macquarie University. He is also a director of the International Society for the Perioperative Care of the Obese Patient. Key conclusions from these trials by Dr Sultana trialling BARM during 2018 and in 2019 to date include:
 - The BARM has shown significant reduction in patients' anaesthesia recovery time using TIVA (Total Intravenous Anaesthesia)
 - The Cortical BARM was "Remarkably stable and the responsive signal permitted a new level of belief in the awareness monitoring technique and allowed Dr Sultana to run cases at a Composite Cortical State (CCS) index of 45 with confidence in early tapering of the patients anaesthesia using TCI (infusions of propofol and remiferational)
 - The BARM had impressive stability and speed of response. Dr Sultana reported that "Often when using the BIS/Entropy (monitors), they dramatically lag the patents emergence and I have had patients that take up to 20 minutes to wake up
 - In usage with NMB (Neuromuscular Block) Dr Sultana was able to "achieve accuracy, predictability and a smooth wake up"

The BARM System has now been used with approximately 160 patients at Strathfield and St Luke's Hospitals.

Cortical believes these conclusions have significant implications for hospital operations:

- (i) Optimising the dose of anaesthetic agent used can reduce the use of anaesthetic agents, and improve patient turn-around times and lead to cost savings
- (ii) Facilitate the delivery of higher quality and more reliable service to hospitals and patients
- Cortical advised that it has issued an Offer Information Statement to undertake a capital raising.

Cortical had previously announced it had signed two five-year exclusive distribution agreements, one with a European distribution company, Innomed, covering Belgium, Netherlands and Luxembourg and the other with a South Korean distribution company, Globaluck.

In early November, Mr Louis Delacretaz, Cortical's Chief Technical Officer, attended the Korea Anesthesia 2018 congress in Seoul. Prior to the congress start, Mr. Delacretaz attended a series of meetings organised by Austrade with anaesthesiology professors from the Seoul National University College of Medicine, Konkuk University School of Medicine and the Catholic University of Korea College of Medicine.

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Each Professor was actively looking for a substitute for their current monitors as they had strong concerns about the credibility of the current monitors reading. In several meetings they were very interested in a means to determine the patients' pain levels and interested in trialing the BARM as a substitute device.

Cortical engaged an international testing and certification organization to test and certify the BARM to comply with the Korean certification process .The assessment also includes the latest medical safety standard deviations for Australia, New Zealand, European Union and the USA.

The regulatory compliance process to enable distribution of the BARM in Korea has now been significantly advanced.

Financial Position

The company has a working capital deficit of \$1,361,691 as at 30 June 2019 (note 15(b)) (2018: working capital deficit of \$864,033) and a net asset deficiency of \$3,737,498 as at 30 June 2019 (2018: deficiency of \$2,996,033).

Significant Changes in State Of Affairs

On 16 October 2018 Mr. Gary Todd was appointed as Managing Director of BPH investee Cortical. Mr Todd has extensive sales experience gained over the last thirty years both in Australia and internationally in Medical Devices, FMCG and IT& T markets.

Further to Cortical's engagement of Enable Funding to undertake a capital raising of up to \$2 million at a price of 10 cents per share, Cortical issued an Offer Information Statement to undertake a capital raising of up to \$2 million at a price of 10 cents per share.

Capital raisings

During the year the Company issued 1,492,210 fully paid ordinary shares at an issue price of \$0.10 each, of which 627,500 related to director remuneration and 864,710 were in lieu of consulting fees.

Other than these there were no other significant changes in the state of affairs of the company other than that referred to in the financial statements or notes thereto.

Environmental Issues

The company's operations are not regulated by any significant environmental regulation under a law of the Commonwealth or of a state or territory.

Likely Developments

Likely developments which may prejudice the company by disclosure have not been disclosed.

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Subsequent Events

The Company lodged a Supplementary Offer Information Statement with ASIC on 1 August 2019.

The Company has issued 1,193,545 fully paid ordinary shares at an issue price of \$0.10 per share for cash. Of these, \$20,000 cash was received prior to 30 June 2019.

The Company has issued 11,970,000 share options in the Company with an exercise price of \$0.20 per share and an expiry date 5 years from the date of issue of the options.

On 29 September 2019 Globaluck, Cortical Dynamics South Korean exclusive distributor of the Brain Anaesthetic Response Monitoring system, confirmed it has now received Korean KGMP certification. This regulatory milestone, the KGMP certificate of approval for its BARM (Class II Medical Device) from the Korea Good Manufacturing Practice (KGMP) followed an independent Korean audit of Cortical's facility in Scoresby, Victoria during July 2019. KGMP certification is required by the Korean Ministry of Food and Drug Safety (MFDS) before placement of Class II, III, and IV medical devices on the South Korean market.

Other than the above, there have not been any matters or circumstance that have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations of the economic entity, the results of those operations, or the state of affairs of the economic entity in future financial years.

Information on Directors

David Breeze (appointed 9 November 2004)

Chairman – Age 66 Shares held – 9,998,702

David is a Corporate Finance Specialist with extensive experience in the stock broking industry and capital markets. He has been a corporate consultant to Daiwa Securities; and held executive and director positions in the stock broking industry. David has a Bachelor of Economics and a Masters of Business Administration, and is a Fellow of the Financial Services Institute of Australasia, and a Fellow of the Institute of Company Directors of Australia. He has published in the Journal of Securities Institute of Australia and has also acted as an Independent Expert under the Corporations Act. He has worked on the structuring, capital raising and public listing of over 70 companies involving in excess of \$250M. These capital raisings covered a diverse range of areas including oil and gas, gold, food, manufacturing and technology.

David Breeze is Chairman of ASX listed Grandbridge Limited, a publicly listed investment and advisory company and a director ASX listed BPH Energy Limited. He is also a director of unlisted Molecular Discovery Systems Limited and Diagnostic Array Systems Pty Ltd.

David was a Director of ASX listed MEC Resources Limited ("MEC") and Advent Energy Limited ("Advent") from April 2005 and November 2005 respectively and was removed from the ASIC register by MEC and Advent directors from MEC on 23 November 2016 and Advent on 26 November 2016. He has neither resigned or nor removed by shareholders and disputes the actions taken by the Directors of each company.

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David Liley (appointed 18 November 2015)

Non - Executive Director – Age 56 Shares held – 6,000,000

Professor David Liley is one of the founders of Cortical Dynamics and one of Cortical's key personnel. He graduated in Medicine at the University of Auckland in 1990, completing a PhD in Psychiatry and Applied Mathematics in 1996. Currently he is one of the senior researchers within the Brain and Psychological Sciences Research Centre at Swinburne University of Technology in Melbourne.

Mr Liley does not hold any other directorships.

Gary Todd (appointed 16 October 2018)

Managing Director – Age 55 Shares held – Nil

Mr Todd has extensive sales experience gained over the last thirty years both in Australia and internationally in Medical Devices, FMCG and IT&T markets. He has expertise in managing and securing new international business partnerships with manufacturers based in Asia, USA and Europe for the supply and distribution of medical devices and consumables. He has successfully managed over the last fifteen years teams with up to \$90 million annual revenues.

Gary started his career with Deloitte, whilst completing a Bachelor of Accounting Science degree, before moving to sales & marketing. He worked for five years with Unilever in South Africa. He then moved to London and gained international experience as a financial analyst contractor working for Cable & Wireless Global Markets, Telewest Communications (now part of Virgin Media) and IBM Global Services. He emigrated to Sydney and over the last fifteen years has held divisional and national roles within the Medical Devices & Consumables and IT &T markets. His experience has included seven years in the Anaesthetic & Critical care division as sales and marketing manager for one of the three largest Medical devices distributors in Australia.

Mr Todd does not hold any other directorships.

Bruce Whan (appointed 8 January 2004)

Non - Executive Director – Age 70 Shares held – Nil

Bruce Whan, BEng, PhD, FAICD, has a background in industry covering a range of research, operations and management positions, followed by a long career in the management of innovation and commercialisation of R&D, in particular from the public research sector.

For 12 years he was a Director of Swinburne Knowledge and CEO of Swinburne Ventures Limited, Swinburne University's commercialisation Company. Bruce was a member of the Commercialisation Australia board and has been director of several companies, mostly start-ups out of Swinburne, and for 10 years was Chairman of the Victorian Innovation Centre Limited (INNOVIC), a non-profit Company assisting innovators at all levels. He is also a Director of one Cooperative Research Centre. Bruce has indepth knowledge and working experience of the challenges of the innovation process and of bringing the outputs of R&D through the commercialisation process to successful market entry.

Bruce is also a director of unlisted Molecular Discovery Systems Limited.

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Indemnifying Officers or Auditors

During or since the end of the financial year the Company has given an indemnity or entered an agreement to indemnity, or paid or agreed to pay insurance premiums as follows:

The Company has paid premiums to insure directors and officers against liabilities for costs and expenses incurred by them in defending any legal proceedings arising out of their conduct while acting in the capacity of director or officer of the Company, other than conduct involving a wilful breach of duty in relation to the Company. The amount of the premium was \$17,500. The Company has not indemnified the current or former auditors of the Company.

Meetings of Directors

The board consults regularly by phone on matters relating to the Company's operations. Resolutions are passed by circulatory resolution. The Company did not hold any meetings of directors during the financial year.

Options

No share options were granted during the year.

Post balance date the Company has issued 11,970,000 share options in the Company with an exercise price of \$0.20 per share and an expiry date 5 years from the date of issue of the options.

Proceedings on Behalf of Company

No person has applied for leave of Court to bring proceedings on behalf of the company or intervene in any proceedings to which the company is a party for the purpose of taking responsibility on behalf of the company for all or any part of those proceedings. The company was not a party to any such proceedings during the year.

Non-audit Services

No fees were paid for non-audit services to the external auditors during the year ended 30 June 2019 (2018: \$Nil).

Auditor's Independence Declaration

The lead auditor's independence declaration for the year ended 30 June 2018 has been received and can be found on page 9.

Signed in accordance with a resolution of the board of directors.

David Breeze

Director

Dated this 8th October 2019



AUDITOR'S INDEPENDENCE DECLARATION

As lead auditor for the audit of the financial report of Cortical Dynamics Limited for the year ended 30 June 2019, I declare that to the best of my knowledge and belief, there have been no contraventions of:

- a) the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
- b) any applicable code of professional conduct in relation to the audit.

Perth, Western Australia 8 October 2019

B G McVeigh Partner

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Statement of Profit or Loss and Other Comprehensive Income for the year ended 30 June 2019 Cortical Dynamics Limited

	Note	2019 S	2018 \$
Revenue	2	2,251	716
Other income	2	158,557	141,145
Administration expenses		(345,057)	(209,586)
Interest expense		(230,339)	(185,921)
Impairment expense	10	(41,340)	·
Loan establishment fees		(17,625)	(3,270)
Provision for inventory writedown	9	(100,170)	(31,746)
Consulting and legal expenses		(103,798)	(44,589)
Amortisation expense		(1,968)	(3,936)
Occupancy expense		(6,205)	(6,060)
Share based payments		(92,343)	-
Research and development expenses	2	(93,889)	(230,607)
Other expenses from ordinary activities		(18,760)	(18,398)
Operating loss before income tax	_	(890,686)	(592,252)
Income tax expense	7	-	-
Operating loss from continuing operations	_	(890,686)	(592,252)
Other Comprehensive Income Items that will never be reclassified to profit or loss Items that are at may be realissified to profit or loss		-	-
Items that are or may be reclassified to profit or loss Total comprehensive loss	-		
i di	=	(575,555)	(3,2,202)

The accompanying notes form part of, and should be read in conjunction with, these financial statements.

Statement of Financial Position

as at 30 June 2019

Cortical Dynamics Limited

	Note	2019 \$	2018 \$
Current Assets			
Cash and cash equivalents	5	36,767	9,491
Trade and other receivables	8	154,322	107,243
Other assets		25,047	-
Financial assets	11	1,847	1,847
Total Current Assets		217,983	118,581
Non-Current Assets			
ntangibles	10		43,308
Total Non-Current Assets			43,308
Total Assets		217,983	161,889
Current Liabilities			
Trade and other payables	12	203,980	108,264
Provisions	13	8,844	-
Financial liabilities	14	1,366,850	874,350
Total Current Liabilities		1,579,674	982,614
Non-Current Liabilities			
Provisions	13	990	990
Financial liabilities	14	2,374,817	2,174,318
Total Non-Current Liabilities		2,375,807	2,175,308
Total Liabilities		3,955,481	3,157,922
Net (Liabilities)		(3,737,498)	(2,996,033)
Equity			
ssued capital	15	1,871,198	1,721,977
Reserves	16	2,981	2,981
Accumulated losses		(5,611,677)	(4,720,991)
otal (Deficiency)		(3,737,498)	(2,996,033)

The accompanying notes form part of, and should be read in conjunction with, these financial statements.

Statement of Changes in Equity

for the year ended 30 June 2019 Cortical Dynamics Limited

	Ordinary Share Capital S	Accumulated losses	Reserves \$	Total \$
Balance at 30 June 2017	1,514,282	(4,128,739)	2,981	(2,611,476)
Loss attributable to members of the economic entity	-	(592,252)	-	(592,252)
Total comprehensive loss	-	(592,252)	-	(592,252)
Shares issued for cash	224,000	-	-	224,000
Share issue costs	(16,305)	-	-	(16,305)
Balance at 30 June 2018	1,721,977	(4,720,991)	2,981	(2,996,033)
Loss attributable to members of the economic entity	-	(890,686)	-	(890,686)
Total comprehensive loss	-	(890.686)	-	(890.686)
Shares issued as remuneration to directors	62,750	-	-	62,750
Shares issued in lieu of consulting fees	86,471	-	-	86,471
Balance at 30 June 2019	1,871,198	(5,611,677)	2,981	(3,737,498)

The accompanying notes form part of and should be read in conjunction with these financial statements

Statement of Cash Flows

for the year ended 30 June 2019 Cortical Dynamics Limited

	Note —	2019 \$	2018 \$
Cash flows from operating activities			
Payments to suppliers and employees		(571,095)	(479,507)
Research and development tax offset received		111,684	84,145
Interest received		1	716
Interest paid		(5,814)	-
Net cash (used in) operating activities	17(b) _	(465,224)	(394,646)
Cash flows from financing activities			
Proceeds from borrowings	17(c)	492,500	40,000
Receipt from issue of shares		_	194,000
Share issue costs		-	(15,868)
Net cash provided by financing activities	_	492,500	218,132
Net increase / (decrease) in cash held		27,276	(176,514)
Cash at the beginning of the financial year		9,491	186,005
Cash at the end of the financial year	17(a)	36,767	9,491

The accompanying notes form part of and should be read in conjunction with these financial statements

Cortical Dynamics Limited

1. Statement of Significant Accounting Policies

Corporate Information

Cortical Dynamic Ltd ("Cortical" or "Company") is a public unlisted company, which is incorporated and domiciled in Australia. This financial report was authorised for issue on 8th October 2019 by the board of directors.

Basis of Preparation

The financial report is a general purpose financial report that has been prepared in accordance with Australian Accounting Standards, and the Corporations Act 2001. Cortical Dynamics Limited is a for-profit entity for the purpose of preparing the financial statements.

Australian Accounting Standards set out accounting policies that the AASB has concluded would result in a financial report containing relevant and reliable information about transactions, events and conditions to which they apply. Compliance with Australian Accounting Standards ensures that the financial statements and notes also comply with International Financial Reporting Standards. Material accounting policies adopted in the preparation of this financial report are presented below. They have been consistently applied unless otherwise stated.

The financial report has been prepared on an accruals basis and is based on historical costs, modified, where applicable, by the measurement at fair value of for profit selected non-current assets, financial assets and financial liabilities.

Compliance with IFRS

The financial statements of the Cortical Dynamics Limited comply with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Going Concern

The company has incurred a net loss after tax for the year ended 30 June 2019 of \$890,686 (2018: loss of \$592,252), has a working capital deficit of \$1,361,691 as at 30 June 2019 (note 16(b)) (2018: working capital deficit of \$864,033) and a net asset deficiency of \$3,737,498 as at 30 June 2019 (2018: deficiency of \$2,996,033).

Included in the working capital positon of the company are loan payables with no fixed term of repayment of \$1,366,850. Subsequent to year end the company has received letters confirming that \$1,366,850 will not be called upon for repayment for at least 12 months from signing the financial report or until such time the company is financially independent. The company anticipates that it would, if required, be able to obtain further short term funding from BPH Energy Limited.

Based on the cash flow forecasts and a significant number of expense reductions which have been implemented, the directors are satisfied that, the going concern basis of preparation is appropriate. The financial report has therefore been prepared on a going concern basis, which assumes continuity of normal business activities and the realisation of assets and the settlement of liabilities in the ordinary course of business. Should the Company not be successful in raising additional funds through the issue of new equity or borrowings, should the need arise, this may cast doubt as to whether or not the Company will be able to continue as a going concern and therefore whether it will realise its assets and discharge its liabilities as and when they fall due and in the normal course of business and at the amounts stated in the financial report.

The financial statements do not include any adjustments relative to the recoverability and classification of recorded asset amounts or, to the amounts and classification of liabilities that might be necessary should the entity not continue as a going concern.

Cortical Dynamics Limited

Accounting Policies

(a) Financial Instruments

Current year

Recognition and derecognition

Financial assets and financial liabilities are recognised when the Group becomes a party to the contractual provisions of the financial instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred. A financial liability is derecognised when it is extinguished, discharged, cancelled or expires.

Classification and initial measurement of financial assets

Except for those trade receivables that do not contain a significant financing component and are measured at the transaction price in accordance with AASB 15, all financial assets are initially measured at fair value adjusted for transaction costs (where applicable). For the purpose of subsequent measurement, financial assets, other than those designated and effective as hedging instruments, are classified into the following categories:

- · amortised cost
- fair value through profit or loss (FVTPL)
- equity instruments at fair value through other comprehensive income (FVOCI)
- debt instruments at fair value through other comprehensive income (FVOCI).

All income and expenses relating to financial assets that are recognised in profit or loss are presented within finance costs, finance income or other financial items, except for impairment of trade receivables which is presented within other expenses.

The classification is determined by both:

- the entity's business model for managing the financial asset, and
- the contractual cash flow characteristics of the financial asset.

Subsequent measurement of financial assets

(i) Financial assets at amortised cost

Financial assets are measured at amortised cost if the assets meet the following conditions (and are not designated as FVTPL):

- they are held within a business model whose objective is to hold the financial assets to collect its contractual cash flows
- the contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

After initial recognition, these are measured at amortised cost using the effective interest method. Discounting is omitted where the effect of discounting is immaterial. The Group's cash and cash equivalents, trade and most other receivables fall into this category of financial instruments.

(ii) Financial assets at fair value through profit or loss (FVTPL)

Financial assets that are held within a different business model other than 'hold to collect' or 'hold to collect and sell' are categorised at fair value through profit and loss. Further, irrespective of business model financial assets whose contractual cash flows are not solely payments of principal and interest are accounted for at FVTPL.

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(a) Financial Instruments (continued)

All derivative financial instruments fall into this category, except for those designated and effective as hedging instruments, for which the hedge accounting requirements apply. The category also contains an equity investment. The Group accounts for the investment at FVTPL and did not make the irrevocable election to account for the investment in unlisted and listed equity securities at fair value through other

comprehensive income (FVOCI). The fair value was determined in line with the requirements of AASB 9, which does not allow for measurement at cost. Assets in this category are measured at fair value with gains or losses recognised in profit or loss. The fair values of financial assets in this category are determined by reference to active market transactions or using a valuation technique where no active market exists.

(iii) Equity instruments at fair value through other comprehensive income (Equity FVOCI)

Investments in equity instruments that are not held for trading are eligible for an irrevocable election at inception to be measured at FVOCI. Under Equity FVOCI, subsequent movements in fair value are recognised in other comprehensive income and are never reclassified to profit or loss. Dividend from these investments continue to be recorded as other income within the profit or loss unless the dividend clearly represents return of capital. This category includes unlisted equity securities that were previously classified as 'available-for-sale' under AASB 139. Any gains or losses recognised in other comprehensive income (OCI) are not recycled upon derecognition of the asset.

(iv) value through other comprehensive income (Debt FVOCI)

Financial assets with contractual cash flows representing solely payments of principal and interest and held within a business model of collecting the contractual cash flows and selling the assets are accounted for at debt FVOCI. The Group accounts for financial assets at FVOCI if the assets meet the following conditions:

- they are held under a business model whose objective it is to "hold to collect" the associated cash flows and sell financial assets; and
- the contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Any gains or losses recognised in other comprehensive income (OCI) will be recycled upon derecognition of the asset.

Impairment of financial assets

AASB 9's impairment requirements use more forward-looking information to recognise expected credit losses – the 'expected credit loss (ECL) model'. This replaced AASB 139's 'incurred loss model'. Instruments within the scope of the new requirements included loans and other debt-type financial assets measured at amortised cost and FVOCI, trade receivables, contract assets recognised and measured under AASB 15 and loan commitments and some financial guarantee contracts (for the issuer) that are not measured at fair value through profit or loss. Recognition of credit losses is no longer dependent on the Group first identifying a credit loss event. Instead the Group considers a broader range of information when assessing credit risk and measuring expected credit losses, including past events, current conditions, reasonable and supportable forecasts that affect the expected collectability of the future cash flows of the instrument.

In applying this forward-looking approach, a distinction is made between:

- financial instruments that have not deteriorated significantly in credit quality since initial recognition or that have low credit risk ('Level 1') and
- financial instruments that have deteriorated significantly in credit quality since initial recognition and whose credit risk is not low ('Level 2').
- 'Level 3' would cover financial assets that have objective evidence of impairment at the reporting date.
- '12-month expected credit losses' are recognised for the first category while 'lifetime expected credit losses' are recognised for the second category. Measurement of the expected credit losses is determined by a probability-weighted estimate of credit losses over the expected life of the financial instrument.

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(a) Financial Instruments (continued)

Trade and other receivables and contract assets

The Group makes use of a simplified approach in accounting for trade and other receivables as well as contract assets and records the loss allowance as lifetime expected credit losses. These are the expected shortfalls in contractual cash flows, considering the potential for default at any point during the life of the financial instrument. In calculating, the Group uses its historical experience, external indicators and forward-looking information to calculate the expected credit losses using a provision matrix. The Group assess impairment of trade receivables on a collective basis as they possess shared credit risk characteristics they have been grouped based on the days past due.

Classification and measurement of financial liabilities

The Group's financial liabilities include borrowings, trade and other payables and derivative financial instruments. Financial liabilities are initially measured at fair value, and, where applicable, adjusted for transaction costs unless the Group designated a financial liability at fair value through profit or loss. Subsequently, financial liabilities are measured at amortised cost using the effective interest method except for derivatives and financial liabilities designated at FVTPL, which are carried subsequently at fair value with gains or losses recognised in profit or loss (other than derivative financial instruments that are designated and effective as hedging instruments).

Prior year

Recognition and Initial Measurement

Financial instruments, incorporating financial assets and financial liabilities, are recognised when the entity becomes a party to the contractual provisions of the instrument. Trade date accounting is adopted for financial assets that are delivered within timeframes established by marketplace convention.

Financial instruments are initially measured at fair value plus transactions costs where the instrument is not classified as at fair value through profit or loss. Transaction costs related to instruments classified as at fair value through profit or loss are expensed to profit or loss immediately. Financial instruments are classified and measured as set out below.

Derecognition

Financial assets are derecognised where the contractual rights to receipt of cash flows expires or the asset is transferred to another party whereby the entity is no longer has any significant continuing involvement in the risks and benefits associated with the asset. Financial liabilities are derecognised where the related obligations are either discharged, cancelled or expire. The difference between the carrying value of the financial liability extinguished or transferred to another party and the fair value of consideration paid, including the transfer of non-cash assets or liabilities assumed, is recognised in profit and loss.

Classification and Subsequent Measurement

(i) Financial assets at fair value through profit and loss

A financial asset is classified in this category if acquired principally for the purpose of selling in the short term or if so designated by management and within the requirements of AASB 139: Recognition and Measurement of Financial Instruments. Derivatives are also categorised as held for trading unless they are designated as hedges. Realised and unrealised gains and losses arising from changes in the fair value of these assets are included in the statement of comprehensive income in the period in which they arise.

Cortical Dynamics Limited

(a) Financial Instruments (continued)

(ii) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are stated at amortised cost using the effective interest rate method.

(iii) Financial liabilities

Non-derivative financial liabilities are recognised at amortised cost at effective interest rate method, comprising original debt less principal payments and amortisation.

(iv) Derivative instruments

Derivative instruments are measured at fair value. Gains and losses arising from changes in fair value are taken to the income statement unless they are designated as hedges.

(v) Fair value

Fair value is determined based on current bid prices for all quoted investments. Valuation techniques are applied to determine the fair value for all unlisted securities, including recent arm's length transactions, reference to similar instruments and option pricing models.

Impairment

At each reporting date, the company assesses whether there is objective evidence that a financial instrument has been impaired. In the case of available-for sale financial instruments, a significant or prolonged decline in the value of the instrument is considered to determine whether an impairment has arisen. Impairment losses are recognised in the statement of comprehensive income.

(b) Impairment of Assets

At each reporting date, the company reviews the carrying values of its tangible and intangible assets to determine whether there is any indication that those assets have been impaired. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to sell and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the statement of comprehensive income.

Impairment testing is performed annually for goodwill and intangible assets with indefinite lives.

Where it is not possible to estimate the recoverable amount of an individual asset, the company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

(c) Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, other short-term highly liquid investments, and bank overdrafts. Bank overdrafts are shown within short-term borrowings in current liabilities on the statement of financial position.

Cortical Dynamics Limited

(d) Revenue and Other Income

Interest revenue is recognised when it is probable that the economic benefits will flow to the company and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

Dividend revenue is recognised when the right to receive a dividend has been established. Dividends received from associates and joint venture entities are accounted for in accordance with the equity method of accounting.

All revenue is stated net of the amount of goods and services tax (GST).

(e) Income Tax

The charge for current income tax expense is based on the profit for the year adjusted for any non-assessable or disallowed items. It is calculated using the tax rates that have been enacted or are substantively enacted by the statement of financial position date. Deferred tax is accounted for using the balance sheet liability method in respect of temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or liability is settled. Deferred tax is recognised in the statement of comprehensive income except

where it relates to items that may be recognised directly to equity, in which case the deferred tax is adjusted directly against equity.

Deferred income tax assets are recognised to the extent that it is probable that future tax profits will be available against which deductible temporary differences or unused tax losses or tax credits can be utilised.

The amount of benefits brought to account or which may be realised in the future is based on the assumption that no adverse change will occur in income taxation legislation and the anticipation that the economic entity will derive sufficient future assessable income to enable the benefit to be realised and comply with the conditions of deductibility imposed by the law.

Tax incentives

The company is entitled to claim special tax deductions in relation to qualifying expenditure. As the company is not in a position to recognise current income tax payable or current tax expense, the refundable tax offset is in cash and recognised as R&D rebate revenue in the period incurred.

(f) Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense.

Receivables and payables in the statement of financial position are shown inclusive of GST.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST component of investing and financing activities, which are disclosed as operating cash flows.

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(g) Intangibles

Patents and Trademarks

Patents and trademarks are recognised at cost of acquisition. Patents and trademarks have a finite life and are carried at cost less any accumulated amortisation and any impairment losses. Capitalized patents and trademarks are amortised over their useful life.

(h) Trade and other payables

Liabilities are recognized for amounts to be paid in the future for goods or services received, whether or not billed to the company. The amounts are unsecured and are usually paid within 30 days.

(i) Share based payments

Share based compensation benefits are provided to employees via the company's employee option plan.

The fair value of options granted under the company's employee option plan is recognized as an employee benefit expense with a corresponding increase in equity. The fair value is measured at grant date and recognized over the period during which the employees become unconditionally entitled to the options.

The fair value at grant date is independently determined using an option pricing model that takes into account the exercise price, the term of the option, the vesting and performance criteria, the impact of dilution, the non-tradable nature of the option, the share price at grant date and expected volatility of the underlying share, the expected dividend yield and risk free interest rate for the term of the option.

The fair value of the options granted excludes the impact of any non-market vesting conditions (for example, profitability and sales growth targets). Non-market vesting conditions are included in assumptions about the number of options that are expected to vest. At each balance sheet date, the entity revises its estimate of the number of options that are expected to vest. The employee benefit expense recognised each period takes into account the most recent estimate. Upon the exercise of options, the balance of the share-based payments reserve relating to those options is transferred to share capital.

(j) Comparative Figures

When required by Accounting Standards, comparative figures have been adjusted to conform to changes in presentation for the current financial year.

(k) Critical accounting estimates and judgments

The directors evaluate estimates and judgments incorporated into the financial report based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and are based on current trends and economic data, obtained both externally and within the company.

Key estimates — Impairment

The company assesses impairment at each reporting date by evaluating conditions specific to the company that may lead to impairment of assets. Where an impairment trigger exists, the recoverable amount of the asset is determined. Value-in-use calculations performed in assessing recoverable amounts incorporate a number of key estimates.

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(I) Employee Benefits

Provision is made for the company's liability for employee benefits arising from services rendered by employees to statement of financial position. Employee benefits that are expected to be settled within one year have been measured at the amounts expected to be paid when the liability is settled, plus related oncosts. Employee benefits payable later than one year have been measured at the present value of the estimated future cash outflows to be made for those benefits.

(m) Trade and Other Receivables

Trade receivables and other receivables are carried at amortised cost less an allowance for any uncollectible amounts. An estimate for doubtful debts is made when the collection of the full amount of the debt is no longer probable. Bad debts are written off when identified.

(n) Property, plant and equipment

Each class of property, plant and equipment is carried at cost less, where applicable, any accumulated depreciation and impairment losses.

Plant and equipment

Plant and equipment are measured on the cost basis. The carrying amount of plant and equipment is reviewed annually by directors to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the asset's employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the company and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the statement of profit or loss and other comprehensive income during the financial period in which they are incurred.

Depreciation

The depreciable amount of all fixed assets including building and capitalised lease assets, but excluding freehold land, is depreciated on a straight-line basis over their useful lives to the company commencing from the time the asset is held ready for use. Leasehold improvements are depreciated over the shorter of either the unexpired period of the lease or the estimated useful lives of the improvements.

Class of Fixed Asset Depreciation Rate

Plant and equipment 33.33%

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains and losses are included in the statement of comprehensive income. When revalued assets are sold, amounts included in the revaluation reserve relating to that asset are transferred to retained earnings.

Cortical Dynamics Limited

(o) Inventories

Inventories are valued at the lower of cost and net realisable value (refer Note 9).

Costs incurred in bringing each product to its present location and condition is accounted for as follows:

Raw materials – purchase cost on a first-in, first-out basis; and

Finished goods and work-in-progress – cost of direct materials and labour and a proportion of manufacturing overheads based on normal operating capacity but excluding borrowing costs.

Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

(p) Application of New and Revised Accounting Standards

Standards and Interpretations in issue not yet adopted

The Directors have reviewed new accounting standards and interpretations that have been published that are not mandatory for 30 June 2019 reporting periods. As a result of this review, the Directors have determined that there is no material impact of the new and revised Standards and Interpretations on the Company and, therefore, no material change is likely to company accounting policies.

AASB 16 Leases

AASB 16 replaces AASB 117 Leases. AASB 16 removes the classification of leases as either operating leases of finance leases-for the lessee – effectively treating all leases as finance leases. AASB 16 is applicable to annual reporting periods beginning on or after 1 July 2019.

Impact on operating leases

AASB 16 will change how the Company accounts for leases previously classified as operating leases under AASB 117, which were off-balance sheet. The Company has elected not to early adopt AASB 16 but has conducted an assessment of the impact of the new standard and have determined that there is no material impact.

Impact on finance leases

The main differences between AASB 16 and AASB 117 with respect to assets formerly held under a finance lease is the measurement of the residual value guarantees provided by the lessee to the lessor. The Company does not have any finance leases.

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(p) Application of New and Revised Accounting Standards (continued)

Standards and Interpretations applicable to 30 June 2019

In the 12 month period ended 30 June 2019, the Directors have reviewed all of the new and revised Standards and Interpretations issued by the AASB that are relevant to the Company and effective for the current annual reporting period.

AASB 9 Financial Instruments

AASB 9 replaces AASB 139 Financial Instruments: Recognition and Measurement and makes changes to a number of areas including classification of financial instruments, measurement, impairment of financial assets and hedge accounting model.

Financial instruments are classified as either held at amortised cost or fair value. Financial instruments are carried at amortised cost if the business model concept can be satisfied. All equity instruments are carried at fair value and the cost exemption under AASB 139 which was used where it was not possible to reliably measure the fair value of an unlisted entity has been removed. Equity instruments which are non-derivative and not held for trading may be designated as fair value through other comprehensive income (FVOCI). Previously classified available-for-sale investments, now carried at fair value are exempt from impairment testing and gains or loss on sale are no longer recognised in profit or loss.

The AASB 9 impairment model is based on expected loss at day 1 rather than needing evidence of an incurred loss, this is likely to cause earlier recognition of bad debt expenses. Most financial instruments held at fair value are exempt from impairment testing. The company has applied AASB 9 retrospectively with the effect of initially applying this standard recognised at the date of initial application, being 1 July 2018 and has elected not to restate comparative information Accordingly, the information presented for 30 June 2018 has not been restated.

There is no material impact to profit or loss or net assets on the adoption of this new standard in the current or comparative years.

AASB 15 Revenue from Contracts with Customers

AASB 15 replaces AASB 118 Revenue and AASB 111 Construction Contracts and related interpretations and it applies to all revenue arising from contracts with customers, unless those contracts are in the scope of other standards. AASB 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised, including in respect of multiple element arrangements. The core principle of AASB 15 is that it requires identification of discrete performance obligations within a transaction and associated transaction price allocation to these obligations, Revenue is recognised upon satisfaction of these performance obligations, which occur when control of goods or services is transferred, rather than on transfer of risks or rewards. Revenue received for a contract that includes a variable amount is subject to revised conditions for recognition, whereby it must be highly probable that no significant reversal of the variable component may occur when the uncertainties around its measurement are removed.

There is no material impact to profit or loss or net assets on the adoption of this new standard in the current or comparative years.

		2019 \$	2018 \$
2.	Revenue		
	Revenue		
	Sale of finished goods	2,250	-
	Interest Revenue	1	716
		2,251	716
	Other Income		
	R&D rebate - current year	145,872	99,000
	R&D rebate - prior year	12,685	42,145
		158,557	141,145
3.	Expenses Included in the Loss for the Year		
	Research and Development Expenses:		
	Consultant expense	89,797	208,825
	Other expenses	104,262	53,528
	Recognition of inventories	(100,170)	(31,746)
		93,889	230,607
4.	Auditors' Remuneration		
	Remuneration of the auditor of the company for:		
	HLB Mann Judd	13,226	4,626
		13,226	4,626
5.	Cash and Cash Equivalents		
	Cash at bank and in hand	36,767	9,491

The average effective interest rate on short-term bank deposits was 0.03%: (2018: 0.02%)

6. Key Management Personnel Compensation

Names and positions held of company key management personnel in office at any time during the financial year are:

Key Management Personnel

David Breeze – Chairman and Company Secretary
Gary Todd – Managing Director (appointed 16 October 2018)
Bruce Whan – Non-Executive Director
David Liley – Non Executive Director

Remuneration of Key Management Personnel (KMP)

The remuneration of each person who received remuneration for each key management personnel of entity during was as follows.

KMP		Short-t	erm Benefits	}	Post-e	mployment Benefits
	Salary and fees	Sign-c Bonu			Car S wance	uperannuation
G Todd	76,543	14,75	4 -	9	,168	7,271
B Whan	(3,500)	-	-		-	-
D Li l ey	4,793	-	-		-	-
КМР	Long- term Benefits		-based ment	Total	Performance Related	Compensation Relating to Options
	Other	Equity	Options	\$	%	%
G Todd	-	33,000	=	140,736	-	-
B Whan	-	29,750	=	26,250	-	-
D Li l ey	-	-	-	4,793	-	-
2018						
KMP		Short-t	erm Benefits	•	Post-e	mployment Benefits
	Salary and fees	Sign-c Bonu			Car S wance	uperannuation
B Whan	26,530	-	-		-	-
КМР	Long- term Benefits		-based ment	Total	Performance Related	Compensation Relating to Options
	Other	Equity	Options	\$	%	%
B Whan	-	-	-	26,530	_	-

7.

	2019 \$	2018 \$
Income Tax Expense		
a) The prima facie tax (benefit) on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Accounting loss before tax	(890,686)	(592,252)
Prima facie tax (benefit) on loss from ordinary activities before income tax at 27.5% (2018: 27.5%)	(244,939)	(162,869)
Effect of concessions: Research and Development Grant	100,237	89,230
Tax benefit of revenue losses and temporary differences not recognised	144,702	73,639
Income tax	-	-
(b) The following deferred tax balances at 27.5% (2018: 27.5%) have not been recognised Deferred Tax Assets:		
Carry forward revenue losses	982,341	753,367
Temporary differences	30,111	36,288
Deferred Tax Liabilities:		
Research and Development accrual	(43,603)	(27,225)
Net deferred tax assets:	968,849	762,430

- (c) The tax benefits of the unrecognised tax losses will only be obtained if:
 - (i) the company derives future assessable income in a nature and of an amount sufficient to enable the benefits to be utilised;
 - (ii) the company continues to comply with the conditions for deductibility imposed by law; and
 - (iii) no changes in income tax legislation adversely affect the company in utilising the benefits.

		2019 \$	2018 \$
8.	Trade and Other Receivables		
	Current		
	Research and development rebate receivable	145,872	99,000
	Other	8,450	8,243
	Total trade and other receivables	154,322	107,243
9.	Inventories		
	Current		
	Raw materials at cost	58,664	7,470
	Less: writedown	(58,644)	(7,470)
	Raw materials at net realisable value	-	
	Finished goods at cost	41,506	24,276
	Less: writedown	(41,506)	(24,276)
	Finished goods at net realisable value		

Inventories have been written down on the basis that the Company does not have a historical record of sufficient revenue generation from the BARM and the product is still in the development stage. This writedown may be re-assessed and may be reversed in future periods.

Notes to the Financial Statements for the year ended 30 June 2019 Cortical Dynamics Limited

		2019 \$	2018 \$
10.	Intangibles		
	Patents		
	Cost	78,730	78,730
	Accumulated amortisation	(78,730)	(35,422)
	Patent costs	-	43,308
	Reconciliation of carrying value Opening balance Less amortisation Less impairment expense	43,308 (1,968) (41,340)	47,244 (3,936) -
	Closing balance	-	43,308
	Historical prior period patent costs-were considered to have no identifiable value at 30 June 2019 and have now been impaired.		
11.	Financial Assets		
	Current		
	Unsecured Loans to other entities: (a)		
	MEC Resources Ltd	1,359	1,359
	BPH Energy Limited	418	418
	Diagnostic Array Systems Pty Ltd	70	70
	<u> </u>	1,847	1,847
	These loans are unsecured, non-interest bearing and repayable on demand.		
12.	Trade and other payables		
	Unsecured:		
	Trade payables	77,180	14,858
	Sundry payables and accrued expenses	126,800	93,406
		203,980	108,264
	The average credit period on payables is 45 days.		

Notes to the Financial Statements for the year ended 30 June 2019 Cortical Dynamics Limited

		2019 \$	2018 \$
13.	Provisions		
	Employee entitlements:		
	Opening balance at 1 July	990	2,540
	Increase / (reduction) in provision	8,844	(1,550)
	Balance at 30 June	9,834	990
	Current	8,844	_
	Non-Current	990	990
	Total at 30 June	9,834	990
	Annual leave: current		
	Opening balance at 1 July	-	-
	Increase in provision	8,844	-
	Balance at 30 June	8,844	-
	Long service leave: non-current		
	Opening balance at 1 July	990	2,540
	(Reduction) in provision	<u>-</u>	(1,550)
	Balance at 30 June	990	990

14. Financial liabilities

	2019	2018
	\$	\$
Current		
Loan payable to BPH Energy Limited (a)	1,026,670	534,170
Loan payable to Grandbridge Limited (a)	340,180	340,180
	1,366,850	874,350
Non- Current		
Loans payable to BPH Energy Limited (b)	2,374,817	2,174,318
	2,374,817	2,174,318

- (a) \$532,500 of these loans have an annual interest rate of 8% and the remainder are non-interest bearing. Subsequent to year end the company has received letters confirming \$1,366,850 of these amounts will not be called upon for repayment for at least 12 months from signing the financial report or until such time the company is financially independent. The Company has provided the borrowers with an option to convert the loans into ordinary shares in the Company (i) in the case of Grandbridge Limited at a conversion price of \$0.10 per share (ii) in the case of BPH Energy Limited at the lower of \$0.10 per share and the most recent share placement price achieved by the company in the 6 months prior to conversion, being \$0.10 per share.
- (b) On 19 November 2010 the Company entered into a convertible loan agreement with BPH Energy Limited. The facility was for an amount of \$500,000. The issue price on conversion will be \$0.10 per share. Interest is charged annually at a rate of 8.16% per annum. The net proceeds received from the issue of the convertible notes have been split between the financial liability element and an equity component, representing the residual attributable to the option to convert the financial liability into equity of the company. The liability component is subsequently measured at amortised cost. The interest expense for the year of \$60,227 (2018: \$55,340) is calculated by applying an effective interest rate of 8.83% to the liability component for the year. As at reporting date the closing balance of the loan, including interest accrued, was \$742,294 (2018: \$682,067). Subject to Cortical being admitted to the Official List BPH Energy has a right of conversion to satisfy the debt on or before the termination date, being 19 July 2021.

On 28 February 2012 the Company entered into a second convertible loan agreement with BPH Energy Limited. The facility is for an amount of \$1,000,000 and has an annual interest rate of 9.40%. The loan agreement is convertible at the election of BPH Energy. The issue price on conversion will be the lower of \$0.10 cents per share and the most recent share placement price achieved by the company in the 6 months prior to conversion. Interest is charged annually at a rate of 9.40% per annum. The net proceeds received from the issue of the convertible notes have been split between the financial liability element and an equity component, representing the residual attributable to the option to convert the financial liability into equity of the company. The liability component is subsequently measured at amortised cost. The interest expense for the year of \$140,272 (2018: \$128,218) is calculated by applying an effective interest rate of 9.40% to the liability component for year. As at the reporting date the closing balance of the loan, including interest accrued, was \$1,632,523 (2018: \$1,492,251). BPH Energy has a right of conversion to satisfy the debt on or before the termination date, being 28 July 2021.

		2017 \$	2018 \$
15.	Issued Capital		
	113,153,431 (2018: 111,661,221) fully paid ordinary shares of no par value	1,871,198	1,721,977

a) Fully Paid Ordinary Share Capital

Fully paid ordinary shares carry one vote per share and carry the right to dividends.

	2019 \$	2018 \$	2019 Number	2018 Number
Ordinary Shares				
At the beginning of reporting period	1,721,977	1,514,282	111,661,221	109,421,221
Shares issued for cash	-	224,000	-	2,240,000
Shares issued as director remuneration	62,750	-	627,500	-
Shares issued in lieu of consulting fees	86,471	-	864,710	-
Share issue costs	-	(16,305)	-	-
At reporting date	1,871,198	1,721,977	113,153,431	111,661,221

b) Capital risk management

The company's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they may continue to provide returns for shareholders and benefits for other stakeholders. The focus of the company's capital risk management is:

- the current working capital position against the requirements of the company to meet corporate overheads; and
- to ensure appropriate liquidity is maintained to meet anticipated operating requirements, with a view to initiating appropriate capital raisings as required.

The working capital position of the company at 30 June 2019 and 30 June 2018 are as follows:

2019 \$	2018 \$
36,767	9,491
154,322	107,243
25,047	-
1,847	1,847
(1,579,674)	(982,614)
(1,361,691)	(864,033)
	\$ 36,767 154,322 25,047 1,847 (1,579,674)

Refer to note 1 for further details of the Company's financial position and plans to manage the working capital deficit at 30 June 2019.

Cortical Dynamics Limited

16.	Reserves		
		2019	2018
		\$	\$
	Option premium on convertible notes	2,981	2,981
	Reconciliation of movement		
	Opening balance	2,981	2,981
	Closing balance	2,981	2,981

The option premium on convertible notes reserve represents the equity component (conversion rights) of the convertible notes.

17. Cash Flow Information

a) Reconciliation of Cash

For the purposes of the statement of cash flows, cash includes cash on hand and in banks and investments in money market instruments, net of outstanding bank overdrafts. Cash at the end of the financial year as shown in the statement of cash flows is reconciled to the related items in the statement of financial position as follows:

Cash and cash equivalents	36,767	9,491
b) Reconciliation of cash flow from operations with profit after income tax		
Operating loss after income tax	(890,686)	(592,252)
Non-cash flows:		
Depreciation and amortisation	1,968	3,936
Share based payments	92,343	-
Impairment expense	41,340	-
Inventory writedown	100,170	-
Interest expense	200,499	183,560
Changes in working capital:		
(Increase) in trade and other receivables	(47,150)	(52,712)
(Increase) / decrease in other assets	(25,047)	979
(Increase) in inventories	(100,100)	-
Increase in trade payables and accruals	152,595	63,393
Increase / (decrease) in provisions	8,844	(1,550)
Net cash (outflows) from operating activities	(465,224)	(394,646)

17. Cash Flow Information (continued)

(c) Changes in liabilities arising from financing activities:

	2019 \$	2018 \$
Balance at 1 July	3,048,668	2,825,110
Net cash from financing activities	492,500	40,000
Interest expense	200,499	183,558
Balance at 30 June	3,741,667	3,048,668

18. Financial Instruments

a) Financial Risk Management

The company's financial instruments consist mainly of deposits with banks, accounts receivable and payable, and loans from related parties. The main purpose of non-derivative financial instruments is to raise finance for company operations.

i. Financial Risks

The main risks that the company is exposed to through its financial instruments are interest rate risk, liquidity risk and credit risk.

Interest rate risk

Interest rate risk is managed with fixed rate debt.

Liquidity risk

The company manages liquidity risk by monitoring forecast cash flows.

Credit risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at balance date to recognised financial assets, is the carrying amount, net of any provisions for impairment of those assets, as disclosed in the statement of financial position and notes to the financial statements.

Credit risk for derivative financial instruments arises from the potential failure by counter-parties to the contract to meet their obligations.

Effective

18. Financial Instruments (continued)

b) Financial Instruments

i. Interest rate risk

The economic entity's exposure to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on classes of financial assets and financial liabilities, is as follows. The effective average interest rate is calculated on interest bearing assets and liabilities.

	Average Interest Rate Receivable /Payable	Floating Interest Rate	Fixed Interest Rate 0 – 1 Years	Fixed Interest Rate 1 – 5 Years	Non- Interest Bearing	Total
2019	%	\$	\$	\$	\$	\$
Financial Assets						
Cash and cash equivalents	0.03%	36,767	-	-	-	36,767
Trade and other receivables		-	-	-	154,322	154.322
Financial assets - current		-	-	-	1,847	1,847
		36,767	-	-	156,169	192,936
Financial Liabilities						
Trade and sundry Payables		-	-	-	203,980	203,980
Financial liabilities	9.00%	-	532,500	2,374,817	834,350	3,714,667
		-	532,500	2,374,817	942,614	3,945,647
2018	Effective Average Interest Rate Receivable /Payable %	Floating Interest Rate \$	Fixed Interest Rate 0 – 1 Years \$	Fixed Interest Rate 1 – 5 Years \$	Non- Interest Bearing \$	Total \$
Financial Assets						
Cash and cash equivalents	0.02%	9,491	-	-	-	9,491
Trade and other receivables		-	-	-	107,243	107,243
Financial assets - current		-	-	-	1,847	1,847
		9,491	-	-	109,090	118,581
Financial Liabilities						
Trade and sundry Payables		-	-	-	108,264	108,264
Financial liabilities	9.20%	-	40,000	2,174,318	834,350	3,048,668

Cortical Dynamics Limited

18. Financial Instruments (continued)

(b) Financial Instruments (continued)

ii. Fair Values

The fair values of:

- Term receivables are determined by discounting the cash flows, at the market interest rates of similar securities, to their present value.
- Other loans and amounts due are determined by discounting the cash flows, at market interest rates of similar borrowings to their present value.
- Other assets and liabilities approximate their carrying value.

No financial assets and financial liabilities are readily traded on organised markets in standardised form other than listed investments.

Aggregate fair values and carrying amounts of financial assets and financial liabilities at balance date:

	2019		2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial Assets				
Trade and other receivables	154,322	154,322	107,243	107,243
Financial assets	1,847	1,847	1,847	1,847
	156,189	156,189	109,090	109,090
Financial Liabilities				
Financial liabilities	3,714,667	3,714,667	3,048,668	3,048,668
Trade and other payables	203,980	203,980	108,264	108,264
_	3,945,647	3,945,647	3,156,932	3,156,932

18. Financial Instruments (continued)

(b) Financial Instruments (continued)

iii. Sensitivity Analysis

Interest Rate Risk

The company has performed sensitivity analysis relating to its exposure to interest rate risk at balance date. This sensitivity analysis demonstrates the effect on the current year results and equity which could result from a change in these risks

Interest Rate Sensitivity Analysis

The effect on profit and equity as a result of changes in variable interest rates, with all other variables remaining constant would be as follows:

	Company	
	2019	2018
Change in loss		
 Increase in interest rate by 1% 	326	4
 Decrease in interest rate by 0.5% 	(82)	(2)

iv. Liquidity risk

Liquidity is the risk that the company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The following are the contractual maturities at the end of the reporting period of financial liabilities.

Contractual cash flows

30 June 2019	Carrying amount	Total	2 mths or less	2-12 mths	1-2 years
Trade and other payables	203,980	203,980	203,980	-	-
Unsecured loans	1,366,850	1,366,850	-	1,366,850	
Secured loans	2,374,817	2,374,817	-	-	2,374,817
	3,945,647	3,945,647	203,980	1,366,850	2,374,817

Contractual cash flows

30 June 2018	Carrying amount	Total	2 mths or less	2-12 mths	1-2 years
Trade and other payables	108,264	108,264	108,264	-	-
Unsecured loans	874,350	874,350	-	874,350	
Secured loans	2,174,318	2,174,318	-	-	2,174,318
	3,156,932	3,156,932	108,264	874,350	2,174,318

19. Subsequent Events

The Company lodged a Supplementary Offer Information Statement with ASIC on 1 August 2019.

The Company has issued 1,193,545 fully paid ordinary shares at an issue price of \$0.10 per share for cash. Of these, \$20,000 cash was received prior to 30 June 2019.

The Company has issued 11,970,000 share options in the Company with an exercise price of \$0.20 per share and an expiry date 5 years from the date of issue of the options.

On 29 September 2019 Globaluck, Cortical Dynamics South Korean exclusive distributor of the Brain Anaesthetic Response Monitoring system, confirmed it has now received Korean KGMP certification. This regulatory milestone, the KGMP certificate of approval for its BARM (Class II Medical Device) from the Korea Good Manufacturing Practice (KGMP) followed an independent Korean audit of Cortical's facility in Scoresby, Victoria during July 2019. KGMP certification is required by the Korean Ministry of Food and Drug Safety (MFDS) before placement of Class II, III, and IV medical devices on the South Korean market.

Other than the above, there have not been any matters or circumstance that have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations of the economic entity, the results of those operations, or the state of affairs of the economic entity in future financial years.

20. Related Party Transactions

(a) Key Management Personnel Remuneration

Details of key management personnel remuneration and retirement benefits are disclosed in Note 5 to the financial statements.

During the year the Company's reversed \$3,500 of consultancy fees for Mr Bruce Whan which were included in trade and other payables at 30 June 2018 (2018: consultancy fees expense of \$26,530).

During the year the Company's incurred \$4,793 of consultancy fees for Mr David Liley, of which \$3,675 were included in trade and other payables at 30 June 2019 (2018: expense of \$Nil).

(b) Related entities

Refer to Note 14 for details regarding unsecured and secured loans and Note 11 for details of loans receivable with BPH Energy Limited and Grandbridge Limited.

During the year the Company:

- (i) incurred \$170,796 (2018: \$175,838) in management and service fees to BPH Energy Limited
- (ii) incurred \$240,793 (2018: \$183,560) in loan interest and fee charges to BPH Energy Limited
- (iii) borrowed net \$492,500 (2018: \$40,000) from BPH Energy Limited

21. Commitments

At reporting date there were no commitments.

22. Contingent Liabilities

There were no contingent liabilities at 30 June 2019.

Directors' Declaration

Cortical Dynamics Limited

The directors of the company declare that:

- 1. the financial statements and notes, as set out on pages 10 to 37, are in accordance with the Corporations Act 2001 and:
 - (a) comply with Accounting Standards and the Corporations Regulations 2001; and
 - (b) give a true and fair view of the financial position as at 30 June 2019 and of the performance for the year ended on that date of the company;
- 2. the Financial Statements and Notes comply with International Financial Reporting Standards as disclosed in Note 1;
- 3. in the directors' opinion there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of the directors made pursuant to \$295(5) of the Corporations Act 2001.

Director

David Breeze

Director

Dated this 8th October 2019



INDEPENDENT AUDITOR'S REPORT

To the members of Cortical Dynamics Limited

Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Cortical Dynamics Limited ("the Company") which comprises the statement of financial position as at 30 June 2019, the statement of profit and loss and other comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Company is in accordance with the *Corporations Act 2001*, including:

- a) giving a true and fair view of the Company's financial position as at 30 June 2019 and of its financial performance for the year then ended; and
- b) complying with Australian Accounting Standards and the Corporations Regulations 2001.

Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* ("the Code") that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to going concern

We draw attention to Note 1 in the financial report, which indicates that a material uncertainty exists that may cast significant doubt on the entity's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

Information other than the financial report and auditor's report thereon

The directors are responsible for the other information. The other information comprises the information included in the Company's financial report for the year ended 30 June 2019, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

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If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the financial report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to
 fraud or error, design and perform audit procedures responsive to those risks, and obtain audit
 evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not
 detecting a material misstatement resulting from fraud is higher than for one resulting from
 error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the
 override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

HLB Mann Judd

HLB Mann Judd

Chartered Accountants

Perth, Western Australia 8 October 2019

B G McVeigh Partner