

Professor. Terence O'Brien  
School of Translational Medicine  
Department of Neuroscience  
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<https://www.monash.edu/medicine/ccs/neuroscience/research/obrien-group>



## Biography

Professor Terence (Terry) O'Brien MB, BS, MD, FRACP, FRCPE, FAHMS, FAES is Chair of Medicine (Neurology) and Head of The School of Translational Medicine, Monash University, and Program Director Alfred Brain and Deputy Director of Research, Alfred Health. He is the former Van Cleef Roet Chair of Neuroscience, Monash University (2017-20) and James Stewart Chair of Medicine, The Royal Melbourne Hospital, University of Melbourne (2008-2017).

The mission of the Central Clinical that he leads is to undertake high quality, internationally significant, research, research training and teaching across a broad range of basic and clinical medical fields, and to translate these to improve treatment and outcomes of patients. The School has 16 Departments and Centres (<https://www.monash.edu/medicine/ccs/centres>), and is part of the Sub-Faculty of Translational Medicine and Public Health led by Foundation Dean, Professor Stephen Jane.

Prof. O'Brien has received 18 awards for his research from national and international scientific bodies, including the Ambassador for Epilepsy Award of the International League Against Epilepsy (2017), The Dreifuss-Perry Epilepsy Award of the American Academy of Neurology (2006), The Eccles Lecturer and Medallion of The Australian Neuroscience Society and The Neurosurgical Society of Australia (2011), Election as Fellow of the Australian Academy of Health and Medical Sciences (2016), The Fritz E. Dreifuss Lecture and Award of The American Epilepsy Society (2022) and The James Lance Oration and Award, the highest award of The Australian and New Zealand Association of Neurologists (2023). Prof. O'Brien has trained students and fellows from many countries of the world, including Holland, Belgium, France, United Kingdom, Brazil, Israel, India, New Zealand, Indonesia, Malaysia and China.

He has supervised to completion 58 doctoral students, 11 masters students, 70 honours/medical research students, 28 clinical epilepsy fellows and 21 post-doctoral research fellows. He is currently supervising 20 PhD students, 1 Masters Students (MPhil), 1 undergraduate/medical students, 6 clinical epilepsy fellows and 14 post-doctoral research fellows. Many of his former students/fellows have gone on to obtain independent NHMRC funding, or the equivalent, for their research, and to be significant research and/or clinical leaders in their own right.

## Qualifications

1 Dec 2000 → ... Doctor of Medicine, MD

1 Dec 1998 → ... Bachelor of Medicine, Bachelor of Surgery, MB, BS

1 Jul 1997 → ... Fellow of the Royal Australasian College of Physicians (Neurology and Clinical Pharmacology), FRACP

## Employment

### Professor

School of Translational Medicine

MONASH UNIVERSITY

2 Mar 2020 → present

### Department of Neuroscience

MONASH UNIVERSITY

1 Mar 2017 → present

### President

Epilepsy Society of Australia

Glenelg, Australia

1 Nov 2018 → present

### Program Director, Alfred Brain

Alfred Hospital

Melbourne, Australia

1 Jul 2018 → present

## **Professorial Fellow**

University of Melbourne  
Parkville, Australia  
1 Dec 2017 → present

## **Director of Neurology**

Alfred Hospital  
Melbourne, Australia  
1 Oct 2017 → present

## **Research outputs**

### **Pathophysiology, blood biomarkers, and functional deficits after intimate partner violence-related brain injury: Insights from emergency department patients and a new rat model**

Sun, M., Symons, G. F., Spitz, G., O'Brien, W. T., Baker, T. L., Fan, J., Martins, B. D., Allen, J., Giesler, L. P., Mychasiuk, R., van Donkelaar, P., Brand, J., Christie, B., O'Brien, T. J., O'Sullivan, M. J., Mitra, B., Wellington, C., McDonald, S. J. & Shultz, S. R., Jan 2025, In: *Brain, Behavior, and Immunity*. 123, p. 383-396 14 p.

### **Combining OPM and lesion mapping data for epilepsy surgery planning: a simulation study**

Mellor, S., Timms, R. C., O'Neill, G. C., Tierney, T. M., Spedden, M. E., Brookes, M. J., Wagstyl, K., Barnes, G. R. & The MELD Project Consortium, Dec 2024, In: *Scientific Reports*. 14, 1, 12 p., 2882.

### **Inflammasomes at the crossroads of traumatic brain injury and post-traumatic epilepsy**

Javalgekar, M., Jupp, B., Vivash, L., O'Brien, T. J., Wright, D. K., Jones, N. C. & Ali, I., Dec 2024, In: *Journal of Neuroinflammation*. 21, 1, 15 p., 172.

### **Plasma biomarkers in chronic single moderate–severe traumatic brain injury**

Spitz, G., Hicks, A., McDonald, S., Doré, V., Krishnadas, N., O'Brien, T. J., O'Brien, W. T., Vivash, L., Law, M., Ponsford, J., Rowe, C. C. & Shultz, S., 1 Nov 2024, In: *Brain*. 147, 11, p. 3690–3701 12 p.

### **In vivo biomarkers of GABAergic function in epileptic rats treated with the GAT-1 inhibitor E2730**

Ali, I., Jupp, B., Hudson, M. R., Major, B., Silva, J., Yamakawa, G. R., Casillas-Espinosa, P. M., Braine, E., Thergarajan, P., Haskali, M. B., Vivash, L., Brkljaca, R., Shultz, S. R., Kwan, P., Fukushima, K., Sachdev, P., Cheng, J. Y., Mychasiuk, R., Jones, N. C., Wright, D. K., & 1 others O'Brien, T. J., Nov 2024, In: *Epilepsia*. 65, 11, p. 3376-3390 15 p.

### **Ex-SPECTing success: Predictors of successful SPECT radiotracer injection during presurgical video-EEG admissions**

Cosentino, C., Al Maawali, S., Wittayachoenpong, T., Tan, T., Au Yong, H. M., Shakhathreh, L., Chen, Z., Beech, P., Foster, E., O'Brien, T. J., Kwan, P. & Neal, A., Oct 2024, In: *Epilepsia Open*. 9, 5, p. 1685-1696 12 p.

### **Elevated plasma neurofilament light and glial fibrillary acidic protein in epilepsy versus nonepileptic seizures and nonepileptic disorders**

Dobson, H., Al Maawali, S., Malpas, C., Santillo, A. F., Kang, M., Todaro, M., Watson, R., Yassi, N., Blennow, K., Zetterberg, H., Foster, E., Neal, A., Velakoulis, D., O'Brien, T. J., Eratne, D. & Kwan, P., Sept 2024, In: *Epilepsia*. 65, 9, p. 2751-2763 13 p.

### **Vascular imaging for Stereoelectroencephalography: A safety and planning study**

Szmidel, M., Hunn, M., Neal, A., Laing, J., Broadley, L., Wittayachoenpong, T., O'Brien, T. & Gutman, M., Sept 2024, In: *Journal of Clinical Neuroscience*. 127, 6 p., 110762.

### **Automated segmentation of epilepsy surgical resection cavities: Comparison of four methods to manual segmentation**

Courtney, M. R., Sinclair, B., Neal, A., Nicolo, J. P., Kwan, P., Law, M., O'Brien, T. J. & Vivash, L., 1 Aug 2024, In: *NeuroImage*. 296, 8 p., 120682.

### **Hospital-acquired infections as a risk factor for post-traumatic epilepsy: A registry-based cohort study**

Chen, Z., Laing, J., Li, J., O'Brien, T. J., Gabbe, B. J. & Semple, B. D., Aug 2024, In: *Epilepsia Open*. 9, 4, p. 1333-1344 12 p.

### **The Australian Traumatic Brain Injury Initiative: Systematic Review of Clinical Factors Associated with Outcomes in People with Moderate-Severe Traumatic Brain Injury**

McKimmie, A., Keeves, J., Gadowski, A., Bagg, M. K., Antonic-Baker, A., Hicks, A. J., Hill, R., Clarke, N., Holland, A. J. A., Veitch, B., Fatovich, D., Reeder, S., Romero, L., Ponsford, J. L., Lannin, N. A., O'Brien, T. J., Cooper, D. J., Rushworth, N., Fitzgerald, M., Gabbe, B. J., & 2 others Cameron, P. A. & the AUS-TBI Initiative Investigators, 1 Jul 2024, In: *Neurotrauma Reports*. 5, 1, p. 640-659 20 p.

### **The role of the adenosine system in epilepsy and its comorbidities**

Baltos, J. A., Casillas-Espinosa, P. M., Rollo, B., Gregory, K. J., White, P. J., Christopoulos, A., Kwan, P., O'Brien, T. J. & May, L. T., Jul 2024, In: *British Journal of Pharmacology*. 181, 14, p. 2143-2157 15 p.

### **Verbal Learning and Memory Deficits across Neurological and Neuropsychiatric Disorders: Insights from an ENIGMA Mega Analysis**

Kennedy, E., Liebel, S. W., Lindsey, H. M., Vadlamani, S., Lei, P. W., Adamson, M. M., Alda, M., Alonso-Lana, S., Anderson, T. J., Arango, C., Asarnow, R. F., Avram, M., Ayesa-Arriola, R., Babikian, T., Banaj, N., Bird, L. J., Borgwardt, S., Brodtmann, A., Brosch, K., Caeyenberghs, K., & 125 others Calhoun, V. D., Chiaravalloti, N. D., Cifu, D. X., Crespo-Facorro, B., Dalrymple-Alford, J. C., Dams-O'Connor, K., Dannlowski, U., Darby, D., Davenport, N., DeLuca, J., Diaz-Caneja, C. M., Disner, S. G., Dobryakova, E., Ehrlich, S., Esopenko, C., Ferrarelli, F., Frank, L. E., Franz, C. E., Fuentes-Claramonte, P., Genova, H., Giza, C. C., Goltermann, J., Grotegerd, D., Gruber, M., Gutierrez-Zotes, A., Ha, M., Haavik, J., Hinkin, C., Hoskinson, K. R., Hubl, D., Irimia, A., Jansen, A., Kaess, M., Kang, X., Kenney, K., Keřková, B., Khlif, M. S., Kim, M., Kindler, J., Kircher, T., Knížková, K., Kolskár, K. K., Krch, D., Kremen, W. S., Kuhn, T., Kumari, V., Kwon, J., Langella, R., Laskowitz, S., Lee, J., Lengenfelder, J., Liou-Johnson, V., Lippa, S. M., Løvstad, M., Lundervold, A. J., Marotta, C., Marquardt, C. A., Mattos, P., Mayeli, A., McDonald, C. R., Meinert, S., Melzer, T. R., Merchán-Naranjo, J., Michel, C., Morey, R. A., Mwangi, B., Myall, D. J., Nenadić, I., Newsome, M. R., Nunes, A., O'Brien, T., Oertel, V., Ollinger, J., Olsen, A., Ortiz García de la Foz, V., Ozmen, M., Pardoe, H., Parent, M., Piras, F., Piras, F., Pomarol-Clotet, E., Repple, J., Richard, G., Rodriguez, J., Rodriguez, M., Rootes-Murphy, K., Rowland, J., Ryan, N. P., Salvador, R., Sanders, A. M., Schmidt, A., Soares, J. C., Spalleta, G., Španiel, F., Sponheim, S. R., Stasenko, A., Stein, F., Straube, B., Thames, A., Thomas-Odenthal, F., Thomopoulos, S. I., Tone, E. B., Torres, I., Troyanskaya, M., Turner, J. A., Ulrichsen, K. M., Umpierrez, G., Vecchio, D., Vilella, E., Vivash, L., Walker, W. C., Werden, E., Westlye, L. T., Wild, K., Wroblewski, A., Wu, M. J., Wylie, G. R., Yatham, L. N., Zunta-Soares, G. B., Thompson, P. M., Pugh, M. J., Tate, D. F., Hillary, F. G., Wilde, E. A. & Dennis, E. L., Jul 2024, In: *Brain Sciences*. 14, 7, 21 p., 669.

### **Validation of the Seizure-Related Impact Assessment Scale (SERIAS): a study protocol**

Foster, E., Conquest, A., Ewart, C., Nicolo, J. P., Rayner, G., Winton-Brown, T., O'Brien, T. J., Kwan, P., Malpas, C. & French, J. A., 11 Jun 2024, In: *BMJ Open*. 14, 6, 8 p., e083929.

### **Biomarkers of Neurobiologic Recovery in Adults with Sport-Related Concussion**

O'Brien, W. T., Spitz, G., Xie, B., Major, B. P., Mutimer, S., Giesler, L. P., Bain, J., Evans, L. J., Duarte Martins, B., Piantella, S., Alhassan, A., Brady, S., Cappellari, D., Somma, V., McColl, T., Symons, G. F., Gore, T., Sun, M., Kuek, T., Horan, S., & 10 others Bei, M., Ponsford, J. L., Willmott, C., Reyes, J., Ashton, N. J., Zetterberg, H., Mitra, B., O'Brien, T. J., Shultz, S. R. & McDonald, S. J., 7 Jun 2024, In: *JAMA Network Open*. 7, 6, 14 p., E2415983.

### **Amygdala enlargement in temporal lobe epilepsy: Histopathology and surgical outcomes**

Shakhatreh, L., Sinclair, B., McLean, C., Lui, E., Morokoff, A. P., King, J. A., Chen, Z., Perucca, P., O'Brien, T. J. & Kwan, P., Jun 2024, In: *Epilepsia*. 65, 6, p. 1709-1719 11 p.

### **Association of Localizing <sup>18</sup>F-FDG-PET Hypometabolism and Outcome Following Epilepsy Surgery: Systematic Review and Meta-Analysis**

Courtney, M. R., Antonic-Baker, A., Chen, Z., Sinclair, B., Nicolo, J. P., Neal, A., Marotta, C., Bunyamin, J., Law, M., Kwan, P., O'Brien, T. J. & Vivash, L., 14 May 2024, In: *Neurology*. 102, 9, 14 p., e209304.

### **Perivascular space Identification Nnunet for Generalised Usage (PINGU)**

Sinclair, B., Vivash, L., Moses, J., Lynch, M., Pham, W., Dorfman, K., Marotta, C., Koh, S., Bunyamin, J., Rowsthorn, E., Jarema, A., Peiris, H., Chen, Z., Shultz, S. R., Wright, D. K., Kong, D., Naismith, S. L., O'Brien, T. J. & Law, M., 14 May 2024, 50 p. arXiv.

**Shared genetic aetiology of Alzheimer's disease and age-related macular degeneration by APOC1 and APOE genes**  
Zhang, X., Zhu, Z., Huang, Y., Shang, X., O'Brien, T. J., Kwan, P., Ha, J., Wang, W., Liu, S., Zhang, X., Kiburg, K., Bao, Y., Wang, J., Yu, H., He, M. & Zhang, L., 15 Apr 2024, In: *BMJ Neurology Open*. 6, 1, 10 p., e000570.

**The Australian Traumatic Brain Injury Initiative: Review and Recommendations for Outcome Measures for Use With Adults and Children After Moderate-to-Severe Traumatic Brain Injury**

Ponsford, J. L., Hicks, A. J., Bagg, M. K., Phyland, R., Carrier, S., James, A. C., Lannin, N. A., Rushworth, N., O'Brien, T. J., Cameron, P. A., Cooper, D. J., Hill, R., Gabbe, B. J., Fitzgerald, M. & the AUS-TBI Initiative Investigators, 1 Apr 2024, In: *Neurotrauma Reports*. 5, 1, p. 387-408 22 p.

**Applying the ILAE diagnostic criteria for Lennox-Gastaut syndrome in the real-world setting: A multicenter retrospective cohort study**

Nightscales, R., Chen, Z., Barnard, S., Auvrez, C., Tao, G., Sivathamboo, S., Bennett, C., Rychkova, M., D'Souza, W., Berkovic, S. F., Nicolo, J. P., O'Brien, T. J., Perucca, P., Scheffer, I. E. & Kwan, P., Apr 2024, In: *Epilepsia Open*. 9, 2, p. 602-612 11 p.

**Patterns of subregional cerebellar atrophy across epilepsy syndromes: An ENIGMA-Epilepsy study**

Kerestes, R., Perry, A., Vivash, L., O'Brien, T. J., Alvim, M. K. M., Arienzo, D., Aventurato, Í. K., Ballerini, A., Baltazar, G. F., Bargallo, N., Bender, B., Brioschi, R., Bürkle, E., Caligiuri, M. E., Cendes, F., de Tisi, J., Duncan, J. S., Engel, J. P., Foley, S., Fortunato, F., & 44 others Gambardella, A., Giacomini, T., Guerrini, R., Hall, G., Hamandi, K., Ives-Deliperi, V., João, R. B., Keller, S. S., Kleiser, B., Labate, A., Lenge, M., Marotta, C., Martin, P., Mascalchi, M., Meletti, S., Owens-Walton, C., Parodi, C. B., Pascual-Diaz, S., Powell, D., Rao, J., Rebsamen, M., Reiter, J., Riva, A., Rüber, T., Rummel, C., Scheffler, F., Severino, M., Silva, L. S., Staba, R. J., Stein, D. J., Striano, P., Taylor, P. N., Thomopoulos, S. I., Thompson, P. M., Tortora, D., Vaudano, A. E., Weber, B., Wiest, R., Winston, G. P., Yasuda, C. L., Zheng, H., McDonald, C. R., Sisodiya, S. M. & Harding, I. H., Apr 2024, In: *Epilepsia*. 65, 4, p. 1072-1091 20 p.

**Epilepsy phenotype and its reproducibility after lateral fluid percussion-induced traumatic brain injury in rats: Multicenter EpiBioS4Rx study project 1**

Ndode-Ekane, X. E., Ali, I., Santana-Gomez, C., Andrade, P., Immonen, R., Casillas-Espinosa, P., Paananen, T., Manninen, E., Puhakka, N., Smith, G., Brady, R. D., Silva, J., Braine, E., Hudson, M., Yamakawa, G. R., Jones, N. C., Shultz, S. R., Harris, N., Wright, D. K., Gröhn, O., & 3 others Staba, R., O'Brien, T. J. & Pitkänen, A., Feb 2024, In: *Epilepsia*. 65, 2, p. 511-526 16 p.

**PRECISION-TBI: a study protocol for a vanguard prospective cohort study to enhance understanding and management of moderate to severe traumatic brain injury in Australia**

Jeffcote, T., Battistuzzo, C. R., Plummer, M. P., McNamara, R., Anstey, J., Bellapart, J., Roach, R., Chow, A., Westerlund, T., Delaney, A., Bihari, S., Bowen, D., Weeden, M., Trapani, A., Reade, M., Jeffree, R. L., Fitzgerald, M., Gabbe, B. J., O'Brien, T. J., Nichol, A. D., & 3 others Cooper, D. J., Bellomo, R. & Udy, A., Feb 2024, In: *BMJ Open*. 14, 2, 7 p., e080614.

**Transmembrane  $\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor regulatory protein expression during the development of absence seizures in genetic absence epilepsy rats from Strasbourg**

Casillas-Espinosa, P. M., Lin, R., Li, R., Powell, K. L. & O'Brien, T. J., Feb 2024, In: *Epilepsia*. 65, 2, p. e20-e26 7 p.

**Monash-Alfred protocol for assessment of atypical parkinsonian syndromes (MAP-APS)**

Siejka, T. P., Bertram, K. L., Tang, H. M., Thyagarajan, D., O'Brien, T. J., Butzkueven, H., Vivash, L. & Harding, I. H., 12 Jan 2024, In: *BMJ Neurology Open*. 6, 1, 5 p., e000553.

**Investigating the Association Between Extended Participation in Collision Sports and Fluid Biomarkers Among Masters Athletes**

Giesler, L. P., O'Brien, W. T., Symons, G. F., Salberg, S., Spitz, G., Wesselingh, R., O'Brien, T. J., Mychasiuk, R., Shultz, S. R. & McDonald, S. J., 1 Jan 2024, In: *Neurotrauma Reports*. 5, 1, p. 74-80 7 p.

**Successful harmonization in EpiBioS4Rx biomarker study on post-traumatic epilepsy paves the way towards powered preclinical multicenter studies**

Ndode-Ekane, X. E., Ali, I., Santana-Gomez, C. E., Casillas-Espinosa, P. M., Andrade, P., Smith, G., Paananen, T., Manninen, E., Immonen, R., Puhakka, N., Cizek, R., Hämäläinen, E., Brady, R. D., Silva, J., Braine, E., Hudson, M. R., Yamakawa, G., Jones, N. C., Shultz, S. R., Wright, D., & 5 others Harris, N., Gröhn, O., Staba, R. J., O'Brien, T. J. & Pitkänen, A., Jan 2024, In: *Epilepsy Research*. 199, 21 p., 107263.

**Tau Phosphorylation Patterns in the Rat Cerebral Cortex After Traumatic Brain Injury and Sodium Selenate Effects: An EpiBios4rx Project 2 Study**

Saletti, P. G., Casillas-Espinosa, P. M., Lisgaras, C. P., Mowrey, W. B., Li, Q., Liu, W., Brady, R. D., Ali, I., Silva, J., Yamakawa, G., Hudson, M., Li, C., Braine, E. L., Coles, L., Cloyd, J. C., Jones, N. C., Shultz, S. R., Moshé, S. L., O'Brien, T. J., Galanopoulou, A. S., & 1 others for the EpiBioS4Rx Study Group, Jan 2024, In: *Journal of Neurotrauma*. 41, 1-2, p. 222-243 22 p.

**Characterizing cognitive function in patients with autoimmune encephalitis: an Australian prospective study**

Griffith, S. P., Wesselingh, R., Seery, N., Rushen, T., Kyndt, C., Long, B., Seneviratne, U., Buzzard, K., Butzkueven, H., O'Brien, T. J., Alptsis, R., Malpas, C. B. & Monif, M., 2024, In: *Journal of Neurology*. 27, p. 310–324 15 p.

**Early Access to First-Seizure Clinics, Subsequent Outcomes, and Factors Associated With Attendance**

Li, Y., Ren, T., Burgess, M., Chen, Z., Carney, P. W., O'Brien, T. J., Kwan, P. & Foster, E., 2024, In: *JAMA Neurology*. 81, 7, p. 732-740 9 p.

**The Australian Traumatic Brain Injury Initiative: Systematic Review of Predictive Value of Biological Markers for People With Moderate-Severe Traumatic Brain Injury**

Bagg, M. K., Hellewell, S. C., Keeves, J., Antonic-Baker, A., McKimmie, A., Hicks, A. J., Gadowski, A., Newcombe, V. F. J., Barlow, K. M., Balogh, Z. J., Ross, J. P., Law, M., Caeyenberghs, K., Parizel, P. M., Thorne, J., Papini, M., Gill, G., Jefferson, A., Ponsford, J. L., Lannin, N. A., & 6 others O'Brien, T. J., Cameron, P. A., Jamie Cooper, D., Rushworth, N., Gabbe, B. J. & Fitzgerald, M., 2024, (Accepted/In press) In: *Journal of Neurotrauma*. 22 p.

**The Australian Traumatic Brain Injury Initiative: Systematic Review and Consensus Process to Determine the Predictive Value of Demographic, Injury Event, and Social Characteristics on Outcomes for People With Moderate-Severe Traumatic Brain Injury**

Gabbe, B. J., Keeves, J., McKimmie, A., Gadowski, A. M., Holland, A. J. A., Semple, B. D., Young, J. T., Crowe, L. M., Ownsworth, T., Bagg, M. K., Antonic-Baker, A., Hicks, A. J., Hill, R., Curtis, K., Romero, L., Ponsford, J. L., Lannin, N. A., O'Brien, T. J., Cameron, P. A., Cooper, J., & 3 others Rushworth, N., Fitzgerald, M. & the AUS-TBI Initiative Investigators, 2024, In: *Journal of Neurotrauma*. 41, p. 1–20 20 p.

**The Australian Traumatic Brain Injury Initiative: Systematic Review of the Effect of Acute Interventions on Outcome for People With Moderate-Severe Traumatic Brain Injury**

Keeves, J., Gadowski, A., McKimmie, A., Bagg, M. K., Antonic-Baker, A., Hicks, A. J., Clarke, N., Brown, A., McNamara, R., Reeder, S., Roman, C., Jeffcote, T., Romero, L., Hill, R., Ponsford, J. L., Lannin, N. A., O'Brien, T. J., Cameron, P. A., Rushworth, N., Fitzgerald, M., & 3 others Gabbe, B. J., Cooper, D. J. & the AUS-TBI Initiative Investigators, 2024, (Accepted/In press) In: *Journal of Neurotrauma*. 16 p.

**The Australian Traumatic Brain Injury Initiative: Systematic Review and Consensus Process to Determine the Predictive Value of Pre-existing Health Conditions for People with Moderate-Severe Traumatic Brain Injury**

Antonic-Baker, A., Auvrez, C., Tao, G., Bagg, M. K., Gadowski, A., McKimmie, A., Hicks, A. J., Hill, R., Romero, L., Ponsford, J. L., Lannin, N. A., Gabbe, B. J., Cameron, P. A., Cooper, D. J., Rushworth, N., Fitzgerald, M., O'Brien, T. J. & the AUS-TBI Initiative Investigators, 2024, (Accepted/In press) In: *Journal of Neurotrauma*. 15 p.

**Author Correction: Variants in SART3 cause a spliceosomopathy characterised by failure of testis development and neuronal defects (Nature Communications, (2023), 14, 1, (3403), 10.1038/s41467-023-39040-0)**

Ayers, K. L., Eggers, S., Rollo, B. N., Smith, K. R., Davidson, N. M., Siddall, N. A., Zhao, L., Bowles, J., Weiss, K., Zanni, G., Burglen, L., Ben-Shachar, S., Rosensaft, J., Raas-Rothschild, A., Jørgensen, A., Schittenhelm, R. B., Huang, C., Robevska, G., van den Bergen, J., Casagrande, F., & 23 others Cyza, J., Pacherneegg, S., Wright, D. K., Bahlo, M., Oshlack, A., O'Brien, T. J., Kwan, P., Koopman, P., Hime, G. R., Girard, N., Hoffmann, C., Shilon, Y., Zung, A., Bertini, E., Milh, M., Ben Rhouma, B., Belguith, N., Bashamboo, A., McElreavey, K., Banne, E., Weintrob, N., BenZeev, B. & Sinclair, A. H., Dec 2023, In: *Nature Communications*. 14, 1, 1 p., 3566.

**Development and validation of a peripheral cell ratio and lactate score for differentiating status epilepticus from prolonged psychogenic nonepileptic seizures**

Tan, T. H. L., Sanfilippo, P., Colman, B., Perucca, P., Kwan, P., O'Brien, T. J. & Monif, M., Dec 2023, In: *Epilepsia Open*. 8, 4, p. 1460-1473 14 p.

**Diurnal circadian clock gene expression is altered in models of genetic and acquired epilepsy**

Yamakawa, G. R., Patel, M., Lin, R., O'Brien, T. J., Mychasiuk, R. & Casillas-Espinosa, P. M., Dec 2023, In: *Epilepsia Open*. 8, 4, p. 1523-1531 9 p.

**EEG based automated seizure detection – A survey of medical professionals**

Wong, S., Simmons, A., Rivera-Villicana, J., Barnett, S., Sivathamboo, S., Perucca, P., Kwan, P., Kuhlmann, L., Vasa, R. & O'Brien, T. J., Dec 2023, In: *Epilepsy & Behavior*. 149, 10 p., 109518.

**Genome-wide identification and phenotypic characterization of seizure-associated copy number variations in 741,075 individuals**

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Multimodality imaging for epilepsy diagnosis and surgical focus localization: Three-dimensional image correlation and dual isotope SPECT

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O'Brien, T. J., Pasaliaris, B., D'Apice, A. & Byrne, E., 1 Jan 1995, In: *Journal of Clinical Neuroscience*. 2, 4, p. 316-320 5 p.

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O'Brien, T. J. & McKelvie, P., 1 Dec 1994, In: *Clinical and Experimental Neurology*. 31, p. 68-78 11 p.

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## **Projects**

### **3D printer - Stratasys Objet30 Pro:**

Kwan, P., O'Brien, T., Jones, N., Casillas-Espinosa, P., Hudson, M., Wright, D., Alan, T., French, C., Chan, J. & Jayawardena, A.

1/10/21 → 31/12/22

### **A 2-year prospective study to evaluate the onset of action of Mavenclad in subjects with highly active relapsing multiple sclerosis.**

Skibina, O. & O'Brien, T.

5/12/18 → 5/12/23

### **A 57-Week, Multicenter, Active-treatment, Open-label Extension Trial of CVL-865 as Adjunctive Therapy in Adults with Drug-Resistant Focal Onset Seizures.**

O'Brien, T., Nicolo, J., Nikpour, A., Wijayath, M., D'Souza, W. J., Reutens, D. C., Carney, P., Somerville, E. R., Mullen, S. A. & Frasca, J.

18/12/20 → 31/12/24

### **A Double-Blind, Placebo-Controlled, Inpatient, Dose-Ranging Efficacy Study of Staccato Alprazolam (STAP-001) in Subjects with Epilepsy with a Predictable Seizure Pattern. ENGAGE study.**

O'Brien, T., Kwan, P. & Mullen, S. A.

20/02/19 → 31/12/19

**A Double-blind, Placebo-controlled Study Investigating the Safety, Tolerability, Efficacy and Pharmacokinetics of EP1, an Enriched Cannabidiol Oil, in Children and Adolescents with Medication Resistant, Refractory Epilepsy.**

O'Brien, T.

10/01/19 → 31/12/19

**A double-blind, randomized, placebo-controlled, multicenter, outpatient, parallel-group study to assess the efficacy and safety of staccato alprazolam in study participants 12 years of age and older with epilepsy with stereotypical prolonged seizures**

O'Brien, T.

7/03/23 → 7/03/25

**A Double-Blind, Randomized, Placebo-Controlled, Safety and Efficacy Study of ANAVEX2-73 in patients with Rett Syndrome.**

O'Brien, T.

5/04/19 → 31/12/22

**ADVANCE: Addressing Dementia Via Agitation-Centered Evaluation**

Gleason, A., O'Brien, T., Woodward, M. C. & Clarnette, R.

10/01/19 → 15/09/19

**A Multicenter, Double-blind, Randomized, Placebo-Controlled Trial with an Open-Label Extension Phase of Perampanel as Adjunctive Treatment in Subjects at Least 2 years of Age with Inadequate Controlled Seizures Associated with Lennox-Gastaut Syndrome.**

O'Brien, T.

28/11/18 → 28/11/20

**A Multicenter, Long-Term Extension study to evaluate the safety, tolerability, and efficacy of AL002 in participants with Alzheimer's Disease**

O'Brien, T. & Stewart, N.

2/05/23 → 2/05/25

**A Multicenter, Open-label Extension Study to Evaluate the Safety, Pharmacodynamics, and Clinical Effects of WVE-120101 in Patients with Huntington's Disease.**

O'Brien, T. & Burn, K.

1/09/20 → 30/04/23

**A Multicenter, Open-label Extension Study to Evaluate the Safety, Pharmacodynamics, and Clinical Effects of WVE-120102 in Patients with Huntington's Disease.**

O'Brien, T. & Burn, K.

1/09/20 → 30/04/23

**A Multicenter, Open-label, Single-arm Study to Evaluate Long-term Safety, Tolerability, and Efficacy of Brivaracetam in Study Participants 2 to 26 Years of Age with Childhood Absence Epilepsy or Juvenile Absence Epilepsy.**

O'Brien, T.

22/04/22 → 31/12/27

**A multicenter, randomized, double-blind, placebo-controlled, parallel-group study to evaluate the efficacy and safety of padsevonil as adjunctive treatment of focal-onset seizures in adult subjects with drug-resistant epilepsy.**

O'Brien, T., Kwan, P., D'Souza, W. J., Berkovic, S. F., Carney, P., Nikpour, A., Reutens, D. C. & Frasca, J.

10/10/19 → 31/12/21

**A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel group study to Evaluate the Efficacy, Safety, and Tolerability of Soticlestat as Adjunctive Therapy in Pediatric and Adult Subjects with Lennox-Gastaut Syndrome (LGS).**

O'Brien, T.

16/03/22 → 31/12/24

**A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel group study to Evaluate the Efficacy, Safety, and Tolerability of Soticlestat as Adjunctive Therapy in Pediatric and Young Adult Subjects with Dravet Syndrome (DS).**

O'Brien, T.

16/03/22 → 31/12/24

**A Multicenter, Randomized, Double-blind, Placebo-controlled, Phase 1b/2a Study of WVE-120101 Administered Intrathecally in Patients with Huntington's Disease.**

O'Brien, T., Bertram, K. & Burn, K.

18/09/19 → 31/10/21

**A Multicenter, Randomized, Double-blind, Placebo-controlled, Phase 1b/2a Study of WVE-120102 Administered Intrathecally in Patients with Huntington's Disease.**

O'Brien, T., Bertram, K. & Burn, K.

18/09/19 → 31/10/21

**A national Magnetic Particle Imaging Facility**

Egan, G., Davis, T., Hagemeyer, C., O'Brien, T., Martino, M., Bansal, V. & Crosbie, J.

7/02/19 → 31/12/19

**An Extension Study of ANAVEX2-73 in Patients with Mild to Moderate Alzheimer's Disease.**

Darby, D., O'Brien, T. & Burn, K.

16/03/20 → 31/12/21

**An informatics approach to predict outcomes and monitor intervention efficacy following moderate to severe traumatic brain injury**

Fitzgerald, M., Gabbe, B., Lannin, N., Vallmuur, K., Curtis, K., Harrison, J., Young, J. T., Menon, D. K., Cullen, J. C., Armstrong, E., Eades, S., Cameron, P., Cooper, J., Fitzgerald, M., Balogh, Z., Fatovich, D., Honeybul, S., Jeffree, R. L., McNamara, R., Mitchell, G. J., Delaney, A., Reade, M. C., Wells, A., Williams, J. K., Ponsford, J., McDonald, S., Kendall, E., Ownsworth, T., Simpson, G., Togher, L., Hassett, L., Fleming, J., Williams, G. P., Collins-Praino, L., Reeder, S., Mobbs, R., Vickers, J. C., Anderson, V., Barlow, K., Holland, A. J. A., Scheinberg, A., Semple, B., Parizel, P. M., O'Brien, T., Law, M., Rose, S. E., Varma, D., Nasrallah, F., Shultz, S., Hellewell, S., Bosio, E., King, K., Parr, M., Udy, A., Hill, A. F., Olver, J., Teague, W. J., Egan, G., Fisher, M., York, L., Bynevelt, M., Maas, A. I. R., O'Reilly, G., McDonald, S., Capell, J., Gilroy, J., Walsham, J., Newcombe, V., Geraghty, T. J., Joyce, C. J., Rosenfeld, J., Elcock, M., Ross, J., Bragge, P., Meka, S., Chai, K., Cowen, G., Hasseler, L., Ercole, A., Wagland, J., Alexander, T., Babl, F. E., Bidargaddi, N., Mahoney, A. J., Wright, D., Crowe, L. M., Robinson, S., Rushworth, N., Hansen, M., Ellis, D., Zeeman, H., Francis, R., Whiley, L. & Reid, C. M.

1/07/21 → 30/06/23

**An Open-Label Ascending Single-Dose, and Randomized, Double-blind, Placebo-controlled, Ascending Multiple-Dose Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of CST-2032 in Healthy Volunteers and Subjects with Mild Cognitive Impairment or Parkinson's Disease**

O'Brien, T. & Kerris, J.

29/07/21 → 31/12/24

**An Open Label Clinical Trial to Evaluate the Efficacy and Safety of PRAX-628 in Adult Patients with Focal Onset or Primary Generalized Tonic-Clonic Seizures**

O'Brien, T.

18/12/24 → 17/12/26

**An Open Label Extension on the Examination of the Combination of Dronabinol and Acetazolamide for Treatment of Obstructive Sleep Apnoea (OSA)**

O'Brien, T.

22/06/21 → 31/12/24

**An Open-Label Extension Study to Investigate the Long-Term Safety, and Tolerability of Intracerebroventricular (ICV) Delivery of Valproate in Subjects with Focal Seizures, with Temporal Lobe Onset with or without Secondary Generalization**

O'Brien, T.  
3/09/21 → 31/12/24

**An open-label, multicenter, extension study to evaluate the safety and efficacy of Padsevonil as adjunctive treatment of focal-onset seizures in adult subjects with drug-resistant epilepsy.**

O'Brien, T., Perucca, P., D'Souza, W. J., Berkovic, S. F., Wijayath, M., Carney, P., Seneviratne, U., Reutens, D. C., Zentner, C., Frasca, J. & Nikpour, A.  
4/06/19 → 31/12/21

**An open-label, multicenter, outpatient extension study to evaluate the safety and tolerability of staccato alprazolam in study participants 12 years of age and older with stereotypical prolonged seizures**

O'Brien, T.  
10/03/23 → 10/03/25

**An open-label, non-randomized, single-arm pilot study to evaluate the safety and efficacy of blood-brain barrier transient opening using NavifUS System in patients with mild Alzheimer's Disease.**

O'Brien, T. & Burn, K.  
13/08/20 → 31/12/23

**An open-label, non-randomized, single-arm pilot study to evaluate the safety and efficacy of multiple pulsed focused ultrasound treatment in patients with drug resistant temporal lobe epilepsy**

O'Brien, T.  
29/03/23 → 28/03/25

**An Open-Label Phase 2 Study to Evaluate the Efficacy, Safety and Tolerability of BMB-101 in Adults with either classic Absence Epilepsy (with or without Eyelid Myoclonia (EEM; Jeavons syndrome), OR Developmental Epileptic Encephalopathy (DEE)**

O'Brien, T., Zentner, C. & Reutens, D. C.  
5/12/24 → 5/12/26

**A Phase 1b/2a randomized, double-blind, placebo-controlled, parallel-group, dose-escalation study to investigate the safety, tolerability, pharmacokinetics, pharmacodynamics, and exploratory efficacy of LP352 in subjects with developmental and epileptic encephalopathies**

O'Brien, T. & Smith, R.  
11/05/23 → 11/05/25

**A Phase 1 Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Immunogenicity of Single and Multiple Doses of AL003 in Healthy Participants and in Participants with Mild to Moderate Alzheimer's Disease**

O'Brien, T. & Burn, K.  
7/05/20 → 31/12/20

**A Phase 2/3 Multicenter, Randomized, Double-Blind, Placebo-Controlled, Study to Evaluate the Efficacy, Safety and Tolerability of BHV 7000 in Subjects with Refractory Focal Onset Epilepsy**

O'Brien, T.  
10/12/24 → 10/12/26

**A Phase 2A, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy, Safety and Pharmacokinetics of ES-481 in Adult Patients with Drug Resistant Epilepsy.**

O'Brien, T., Mullen, S. A., Nicolo, J. & Reutens, D. C.  
18/01/21 → 18/07/21

**A Phase 2b/3, Double-Blind, Randomized, Placebo-Controlled 48-week Safety and Efficacy trial of ANAVEX2-73 for the Treatment of Early Alzheimer's Disease (AD).**

O'Brien, T.  
8/01/19 → 31/12/20

**A Phase 2, double-blind, placebo-controlled trial of sodium selenate as a disease modifying treatment for chronic drug resistant temporal lobe epilepsy (SELECT Trial)**  
O'Brien, T., Vivash, L., Churilov, L., Kwan, P., Carney, P., Perucca, P., Nicolo, J., Cook, M. J., Gillinder, L., Casillas-Espinosa, P., Hovens, C. M., Malpas, C., Shultz, S., Velakoulis, D., Lawn, N. D., Johns, H., Wijayath, M., Burford, J., Wait, L., D'Souza, W. J. & Reutens, D. C.  
1/02/23 → 31/01/28

**A Phase 2, Double-Blind, Randomized, Placebo-Controlled Study to Assess Intracerebroventricular (ICV) Delivery of CT-010 via an Implantable Pump and a Cranial Port and Double Lumen Catheter (ICVRX) in Subjects with Focal Seizures, with Temporal Lobe Onset with or without Secondary Generalization**  
O'Brien, T. & Germaine, J.  
17/06/20 → 31/12/24

**A Phase 2, multicenter, open-label, long-term safety study of LP352 in subjects with developmental and epileptic encephalopathy who completed Study LP352-201 and are candidates for continuous treatment for up to 52 weeks**  
O'Brien, T.  
19/10/23 → 20/10/25

**A Phase 2, Open-label Study of PRAX-944 to Assess the Safety, Tolerability, Pharmacokinetics, and Efficacy of Escalating Multiple Oral Doses in Adults with Generalized Epileptic Syndromes with Absence Seizures.**  
O'Brien, T. & Germaine, J.  
9/10/18 → 20/07/19

**A Phase 2 Randomized, Double-Blind, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy and Safety of AL002 in Participants with Early Alzheimer's Disease**  
O'Brien, T.  
7/09/21 → 31/12/24

**A Phase 3, Double-blind, Randomized, Placebo-controlled Trial of Adjunctive Ganaxolone (GNX) Treatment in Children and Adults with Tuberous Sclerosis Complex (TSC)-related Epilepsy (Trust TSC)**  
O'Brien, T. & Germaine, J.  
5/10/23 → 4/10/25

**A Phase 3, Open-label Study of Adjunctive Ganaxolone (GNX) Treatment in Children and Adults with Tuberous Sclerosis Complex (TSC)-related Epilepsy**  
O'Brien, T.  
19/04/24 → 19/04/26

**A Phase 3, Prospective, Open-Label, Multisite, Extension of Phase 3 Studies To Assess the Long-Term Safety and Tolerability of Soticlestat as Adjunctive Therapy in Subjects With Dravet Syndrome or Lennox-Gastaut Syndrome (ENDYMION 2)**  
O'Brien, T.  
14/09/22 → 1/06/24

**A Phase IIa, Randomized, Double Blind, Placebo Controlled, Single Ascending Dose, Safety and Pharmacokinetic / Pharmacodynamic Study of INP103 (POD L-dopa) Administered in the Presence of Benserazide to L-dopa Responsive Parkinson's Disease Patients.**  
O'Brien, T. & Bertram, K.  
15/03/18 → 15/03/20

**A Phase I Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Immunogenicity of Single and Multiple Doses of AL002 in Healthy Participants and in Participants with Mild to Moderate Alzheimer's Disease.**  
O'Brien, T. & Brodtmann, A.  
30/05/19 → 31/12/19

**A randomized, dose-finding and confirmatory, double-blind, placebo-controlled, parallel-group multicenter study with a 2-stage adaptive design and randomized withdrawal to evaluate the efficacy, safety, and tolerability of brivaracetam as monotherapy in patients 2 to 25 years of age with childhood absence epilepsy or juvenile absence epilepsy.**

O'Brien, T.

**A Randomized, Double-blind, Placebo-Controlled, Multicenter Study to Evaluate the Safety, Tolerability, and Efficacy of CB03-154 as Adjunctive Therapy in Focal Epilepsy**

O'Brien, T.

15/01/25 → 14/01/27

**A randomized, double-blind, placebo-controlled, parallel group, multicenter trial of CVL-865 as adjunctive therapy in adults with drug-resistant focal onset seizures (REALIZE TRIAL)**

O'Brien, T., Nicolo, J., Nikpour, A., Wijayath, M., D'Souza, W. J., Reutens, D. C., Carney, P., Somerville, E. R., Mullen, S. A. & Frasca, J.

5/06/20 → 31/12/23

**A Randomized, Double-blind, Placebo-controlled, Parallel-group, Phase 2 Study to Evaluate the Safety and Efficacy of CT1812 in Subjects with Mild to Moderate Alzheimer's Disease.**

O'Brien, T.

10/01/19 → 31/12/20

**A Randomized, Double-Blind, Placebo-Controlled Study to Assess the Safety and Tolerability of GRF6021 Infusions in Subjects with Parkinson's Disease and Cognitive Impairment.**

Bertram, K. & O'Brien, T.

8/04/19 → 30/04/20

**ARISE: pAdsevonil in drug-Resistant Epilepsy. A randomized, double-blind, placebo-controlled, dose finding study to evaluate the efficacy and safety of Padsevonil as adjunctive treatment of focal-onset seizures in adult subjects with drug resistant epilepsy.**

O'Brien, T., Kwan, P., D'Souza, W. J., Berkovic, S. F., Wijayath, M., Carney, P., Lawn, N. D., Seneviratne, U., Reutens, D. C., Zentner, C. & Frasca, J.

11/12/18 → 11/12/19

**A Therapeutic Intervention, Open Label Study to Compare the Efficacy and Safety of Graded Exercise Compared to Passive Stretching in Subjects Who Have Sustained a Mild Traumatic Brain Injury**

O'Brien, T., Barlow, K., Levi, C. R. & Jankelowitz, S.

5/05/20 → 31/12/23

**Australian Autoimmune Encephalitis Consortium Study - improving diagnosis, outcomes, and quality of care for patients with this devastating neurological illness.**

Monif, M., Wesselingh, R., Butzkueven, H., Reddel, S. W., Malpas, C., Haartsen, J., Hardy, T. A., Gillis, D., Seneviratne, U., Blum, S., Nesbitt, C. S., Heiss, L., Macdonell, R. A. L., Mykytowycz, M., Sanfilippo, P., D'Souza, W. J., Kulkarni, J., Buzzard, K., O'Brien, T., Broadley, S., Taylor, B. V. M., MacIntyre, J., Barton, J., Swayne, A., Alpitsis, R., Harding, I., Butler, E., Ramanathan, S., Giles, A. & Gadi, M.

1/03/24 → 31/12/27

**AEP: Australian Epilepsy Project**

Kwan, P., O'Brien, T., Ademi Delaney, Z. & Piccenna, L.

Florey Institute of Neuroscience and Mental Health (FINMH)

3/06/21 → 30/06/26

**Biomarkers of Brain Concussion**

Shultz, S., O'Brien, T., Kosofsky, B., Germaine, J., Smith, R., Fielding, J., Clough, M. & Wright, D.

14/11/18 → 30/06/22

**Brain glutamate imaging by ultra-high-field MRI for prediction of post-stroke epilepsy**

Kwan, P., O'Brien, T., Cloud, G., Hand, P., Yan, B., Nicolo, J. & Wright, D.

11/03/19 → 8/03/21

**Brain injury in intimate partner violence: Insight into a silent pandemic**

Shultz, S., O'Sullivan, M. J., Fitz-Gibbon, K., Meyer, S., van Donkelaar, P., Christie, B. R., Mychasiuk, R., McDonald, S., Law, M., Vivash, L., O'Brien, T., Ponsford, J., Jupp, B., Chen, Z., Mitra, B. & Marks, J.  
National Health and Medical Research Council (NHMRC) (Australia)  
1/01/22 → 31/12/24

**Calcium channel modulation to prevent post-traumatic epilepsy**

O'Brien, T., Galanopoulou, A. S., Casillas-Espinosa, P., Shultz, S., Jones, N. & Moshé, S. L.  
1/05/23 → 30/04/26

**Cardiorespiratory function as a non-invasive biomarker for detecting seizures with artificial intelligence: Utilising data from long-term patient recordings from an epilepsy monitoring unit**

O'Brien, T., Kwan, P., Sivathamboo, S., Perucca, P., Ge, Z., Le, T., Phung, D., Bonnington, P. & Piccenna, L.  
8/04/19 → 8/04/20

**Central Clinical School (CCS) Research Support**

O'Brien, T.  
14/06/22 → 14/06/23

**Changzhou Trendi Medical Technology Co Ltd - Equipment Research Agreement**

O'Brien, T.  
Changzhou Trendi Medical Technology Co Ltd  
1/03/21 → 29/02/24

**CLADIN sub study. Effect of CLADribine on Innate Immune Response (CLADIN). MS Immunity Project.**

Monif, M., Butzkueven, H. & O'Brien, T.  
27/06/19 → 9/09/22

**CORE-VNS:Comprehensive Outcomes Registry in Subjects with Epilepsy Treated with Vagus Nerve Stimulation Therapy.**

O'Brien, T.  
24/09/18 → 31/12/23

**Developing new treatments and identifying biomarkers to enable transformational, precision medicine based care for patients with drug resistant epilepsy**

O'Brien, T.  
National Health and Medical Research Council (NHMRC) (Australia)  
1/01/20 → 31/12/24

**Development and validation of a salivary ketone point-of-care test**

Kwan, P., Kaul, N., Chan, J., O'Brien, T., Chen, Z. & Nation, J.  
Shenzhen Children's Hospital, Mx3 Diagnostics  
27/08/19 → 31/08/23

**Dose finding crossover trial investigating the effect of dronabinol combined with acetazolamide on Apnoea Hypopnea Index (AHI) in adults with obstructive sleep apnoea (OSA).**

O'Brien, T.  
24/09/20 → 31/12/24

**Drug screening using Homer1 patient's iPSCs-derived neurons for clinical trials of precision medicine**

Javaid, S., Rollo, B., Antonic-Baker, A., Kwan, P. & O'Brien, T.  
Homer Hack Ltd  
17/04/23 → 30/09/24

**Educational Grant - Monash Alfred 2021 Movement Disorders Fellowship**

O'Brien, T. & Bertram, K.  
Ipsen (Australia)



1/02/21 → 31/01/22

**Electroencephalogram (EEG) in autoimmune encephalitis diagnosis and prognosis.**

Tan, T., Monif, M., Wesselingh, R., Seery, N., Kwan, P. & O'Brien, T.

1/01/25 → 1/01/26

**Evaluating Huperzine as an anti-seizure agent in the GAERS model of GGE with absence seizures.**

Casillas-Espinosa, P. & O'Brien, T.

25/08/20 → 24/11/20

**Evaluating the effectiveness and safety of sodium selenate as a disease modifying treatment for patients with behavioural variant Frontotemporal Dementia (bvFTD)**

O'Brien, T., Malpas, C., Velakoulis, D., Piguet, O., Kalincik, T., Walterfang, M. A., Ahmed, R., Bush, A. I., Darby, D. G. & Brodtmann, A.

Department of Health and Aged Care (Australia)

1/04/19 → 31/03/26

**Exercise therapy for mild traumatic brain injury (mTBI) and persistent post-concussion symptoms (PPCS) across the lifespan**

O'Brien, T., Leddy, J., Willmott, C., Mitra, B., Shultz, S., Chen, Z., McDonald, S., Morokoff, A., Caeyenberghs, K., Ponsford, J., Rushworth, N., Akhlaghi, H., Davies, K. & Olver, J.

Department of Health and Aged Care (Australia)

1/06/21 → 31/05/24

**First Seizure Assessment and Management.**

Foster, E. & O'Brien, T.

5/02/18 → 4/02/19

**First Seizure Management in Australia**

Foster, E. & O'Brien, T.

5/02/18 → 4/02/21

**First Seizures: Patient Reported Outcome Measures**

Ademi Delaney, Z., Foster, E., Kwan, P., Chen, Z., O'Brien, T., Liew, D. & Zomer, E.

30/04/20 → 30/03/24

**Glioblastoma - inhibition of P2X7R as a potential therapeutic target for treatment of this aggressive cancer.**

Monif, M., Hunn, M., Drummond, K. J., McLean, C., Jones, N., Sanfilippo, P. & O'Brien, T.

1/01/22 → 31/12/25

**HIT-IQ kinematics and observation of head impacts in Australian football**

Mitra, B., McDonald, S., Willmott, C., Shultz, S., Makdissi, M. & O'Brien, T.

1/01/22 → 31/12/23

**How does chronic epilepsy result in cardiac electrophysiological dysfunction?**

O'Brien, T., Powell, K., Delbridge, L. M. D., Pilowsky, P. M. & Royse, C.

National Health and Medical Research Council (NHMRC) (Australia)

1/01/18 → 31/12/19

**Human Epilepsy: Understanding biology to improve outcomes**

Berkovic, S. F., Jackson, G. D., Gecz, J., Connelly, A., Scheffer, I. E., O'Brien, T., Calamante, F., Petrou, S. & Reid, C. A.

National Health and Medical Research Council (NHMRC) (Australia)

23/04/18 → 31/12/20

**Human high-throughput in-vitro phenotypic screening for new epilepsy drugs**

Rollo, B., Kwan, P., O'Brien, T., Langmead, C., Baell, J., Casillas-Espinosa, P., May, L., Ayers, K. L. & Sumer, H.  
1/06/22 → 1/01/23

**Identification and Forecasting of Seizure from EEG data recorded from rodents in Laboratory settings using QA/QC and Machine Learning Algorithms**

Casillas-Espinosa, P., O'Brien, T. & Knight, K.  
1/12/18 → 30/11/20

**Identification and Forecasting of Seizure from EEG data recorded from rodents in Laboratory settings using QA/QC and Machine Learning Algorithms Stage 2**

O'Brien, T., Casillas-Espinosa, P. & Knight, K.  
Monash University – Internal Faculty Contribution  
1/06/19 → 30/05/21

**Improvement First Seizure Assessment and Management**

O'Brien, T., Perucca, P., Liew, D., Ademi Delaney, Z. & Carney, P.  
Monash University – Internal University Contribution, Epilepsy Foundation  
1/12/20 → 31/12/22

**Infections promote post-traumatic epilepsy and poor outcomes after traumatic brain injury**

Semple, B., O'Brien, T. & Li, J.  
United States Department of Defense (DOD)  
4/01/21 → 29/09/24

**INFORMED: Integrative approaches For Optimizing Recognition, Management and Education of concussion at the community sports level**

Mitra, B., McDonald, S., Ponsford, J., Shultz, S., Fitzgerald, M., Willmott, C., O'Brien, T., Law, M., McKay, A., O'Sullivan, M. J., Hellewell, S., Natoli, R., Caeyensberghs, K., Makdissi, M., Chen, Z. & Whiley, L.

**INFORMED: Integrative approaches For Optimizing Recognition, Management and Education of concussion at the community sports level**

Mitra, B., McDonald, S., Ponsford, J., Shultz, S., Fitzgerald, M., Willmott, C., O'Brien, T., Law, M., McKay, A., O'Sullivan, M. J., Hellewell, S., Natoli, R., Caeyensberghs, K., Makdissi, M., Chen, Z. & Whiley, L.  
1/07/22 → 31/05/25

**"Integrative-omics" for precision medicine in the epilepsies**

Scheffer, I. E., Gecz, J., Halgamuge, S., O'Brien, T., Petrou, S., Berkovic, S. F., Perucca, P., Howell, K. B., Hildebrand, M. S., Palmer, E. E. & Sadikovic, B.  
1/01/22 → 31/12/26

**Intracerebral delivery of Neuropeptide Y through human-induced pluripotent stem cell-derived progenitors (NPY-hiPSC-NPs) as a disease-modifying approach treatment for drug-resistant epilepsy**

Antonic-Baker, A., O'Brien, T., Jones, N., Kwan, P. & Javaid, S.

**MAGPIX**

Monif, M., Hibbs, M., Tarlinton, D. & O'Brien, T.  
1/01/21 → 31/12/21

**Manufacturing and commercialization of [18F]-PET radiotracers**

Stupple, P., Baell, J., Hawkey, L., Mudududda, R., O'Brien, T., Vivash, L., Jupp, B., Santamaria, G., Ware, R. E., Stephens, A. W. & Mueller, A.  
10/04/21 → 26/09/25

**MCIS: Characterising Mild Cognitive Impairment using multimodal biomarkers.**

O'Brien, T. & Vivash, L.

17/08/20 → 31/12/21

**Measuring inflammation in brain and blood for predicting risk of post-traumatic epilepsy**

Ali, I., Jones, N., O'Brien, T., Dedeurwaerdere, S., Wright, D. & Vivash, L.  
United States Department of Defense (DOD)  
30/09/21 → 29/06/24

**Movement Disorders 2022 Fellowship**

O'Brien, T. & Bertram, K.  
1/01/22 → 31/12/22

**NHMRC Equipment Grant - Lateral Fluid Percussion Injury (LFPI) Device**

Vivash, L., Leung, J., Casillas-Espinosa, P., Ali, I., O'Brien, T., Shultz, S. & Jones, N.  
1/11/23 → 31/12/24

**NHMRC Equipment Grant - Quanterix SIMOA HD-1 Analyser**

Shultz, S., Kwan, P., Medcalf, R., O'Brien, T., Mitra, B., Coughlan, M., Jones, N., Van Der Walt, A., Butzkueven, H., Semple, B. & Hutton, E.  
Monash University – Internal Faculty Contribution, Monash University – Internal Department Contribution  
1/01/19 → 31/12/19

**NSV Early Career Fellowship Hugh Simpson**

Simpson, H. & O'Brien, T.

**Open Label Extension Study for Patients with Early Alzheimer's Disease (AD) Enrolled in Study ANAVEX2-73-AD-004.**

O'Brien, T. & Burn, K.  
7/02/20 → 31/12/25

**Optimisation of first seizure management: a retrospective data linkage analysis**

Foster, E., O'Brien, T., Kwan, P., Liew, D., Ademi Delaney, Z. & Chen, Z.  
Brain Foundation  
1/01/20 → 31/12/20

**Perampanel in glioma associated seizures - efficacy and safety: a pilot phase II randomised controlled trial.(PEGASUS)**

O'Brien, T., Neal, A., Kwan, P., Drummond, K. J., Morokoff, A., Desmond, P. M., Moffat, B. A., Perucca, P., Gonen, O., Yuen, T. I., Murphy, M. A., Bulluss, K. J. & Cher, L. M.  
1/09/18 → 1/09/20

**PERSONAL: Personalised Selection of Medication for Newly Diagnosed Adult Epilepsy – the PERSONAL Trial**

Kwan, P., Chen, Z., Lannin, N., Ademi Delaney, Z., Ge, Z., Reutens, D., O'Brien, T., D'Souza, W. J., Perucca, P., Reeder, S., Nikpour, A., Wong, C., Kiley, M., Saw, J., Nicolo, J., Seneviratne, U., Carney, P., Jones, D., Somerville, E. R. & Stapleton, C.  
1/02/23 → 31/01/27

**Phase 1b Open-label, Dose-Identification Study of XPro1595 in Patients with Mild to Moderate Alzheimer's Disease with Elevated high sensitivity C-reactive protein in Blood.**

O'Brien, T., Burn, K., Woodward, M. C., Lai, R., Clarnette, R., Brodtmann, A. & Nestor, P. J.  
25/09/19 → 31/08/22

**Phase 2, Open-label Study of PRAX-944 to Assess the Safety, and Efficacy of Escalating Multiple Doses in Adults with Refractory Absence Seizures**

O'Brien, T., Kwan, P., Germaine, J., Smith, R., Casillas-Espinosa, P., Reddy, K. & Piccenna, L.  
18/02/19 → 18/02/20

**Positive allosteric modulation of anti-convulsant G protein-coupled receptor signalling to treat drug-resistant epilepsy**  
May, L., Webb, G., Carlsson, J., Baltos, J., TN Nguyen, A., Christopoulos, A., Miao, Y., O'Brien, T., Rollo, B., Casillas-Espinosa, P., Gregory, K., Scammells, P. & Nguyen, T.  
1/01/22 → 31/12/25

**PRECISION-TBI: PRECISION-TBI – Promoting evidence-based, data driven care for critically ill moderate-to-severe TBI patients**

Udy, A., Cooper, J., Jeffree, L., Bellomo, R., Nichol, A., O'Brien, T., Bellapart, J., Menon, D. K., McNamara, R., Fitzgerald, M., Togher, L., Delaney, A., Anstey, J. R., Honeybul, S., Hunn, M., Reddi, B. A. J., Adamides, A. A., Wells, A. & Lewis, P.  
1/06/21 → 30/11/25

**Pre-clinical evaluation of selective adenosine A1 receptor positive allosteric modulators for the treatment of drug-resistant epilepsy**

Kwan, P., May, L., Rollo, B., O'Brien, T., Casillas-Espinosa, P., Howden, S., Christopoulos, A., Gregory, K., Scammells, P., Baltos, J., Elliot, D., TN Nguyen, A., Langmead, C., Antonic-Baker, A., Sumer, H., Javaid, S. & Gu, J.  
1/06/22 → 31/05/27

**Prevention of post-stroke epilepsy in patients with acute ischaemic stroke at high risk of developing seizures.**

Kwan, P., O'Brien, T., Yan, B., Nicolo, J., Cloud, G., Moffat, B. A., Wright, D. & Neal, A.  
25/01/19 → 31/12/22

**Probable Progressive Supranuclear Palsy research**

O'Brien, T.  
30/09/21 → 30/09/25

**RENAISSANCE Study: A Phase 2, Multicenter, Open Label Safety and Tolerability Study of SPN-817 in Adult Patients with Treatment Resistant Epilepsy**

O'Brien, T., Nicolo, J., Perucca, P., Reutens, D. C., Carney, P., Somerville, E. R., Wijayath, M. & Wong, T.  
19/12/22 → 18/12/24

**REVEAL – Research Evaluating Vagal Excitation and Anatomical Linkages**

Osborn, J., Eberly, L., Ikramuddin, S., Lim, H. H., Macefield, V., Nahas, Z. H., Aaronson, S. T., Baker, S. E., Camilleri, M., Conway, C. R., Crawford, P., Darrow, D. P., Drawz, P. E., Dudley, S. C., Fonkoue, I. T., George, M. S., Henry, T. R., Hering, B. J., Ingram, M., Johnson, M. D., Keller-Ross, M. L., Lim, K. O., Loavenbruck, A., McCarty, C. A., Meyer, M., Micera, S., Mueller, B., Murray, T., Netoff, T., O'Brien, T., Panoskaltis-Mortari, A., Park, M. C., Puchalska, P., Ramachandran, S., Singh, A., Talkachova, A., Tignanelli, C., Walczak, T., Williams, N., Willie, J. T. & Worrell, G.  
NIH - National Institutes of Health (United States of America)  
1/09/23 → 31/08/25

**REVEAL – Research Evaluating Vagal Excitation and Anatomical Linkages (Clinical Core)**

Osborn, J. W., Macefield, V. & O'Brien, T.  
1/09/23 → 31/08/24

**Reversing post-traumatic epilepsy**

Casillas-Espinosa, P., O'Brien, T., Shah, A., Anderson, A., Huang, E., Shultz, S., Jones, N. & Schittenhelm, R.  
30/09/21 → 29/09/25

**Seizure Detection and Classification Using Eyelid Movements: A Video-EEG Monitoring Study (OPTALERT-0-001).**

O'Brien, T., Kwan, P. & Thomas, J.  
18/09/19 → 31/12/23

**Seizure Detection Using Electrocardiogram Recordings and Kaoskey TRIO Software Study (KAOSKEY-K-001).**

O'Brien, T. & Thomas, J.  
1/05/20 → 31/12/21

**Sodium Selenate as a Disease Modifying Treatment for Progressive Supranuclear Palsy (Sodium Selenate for PSP)**  
O'Brien, T., Bertram, K., Vivash, L., Evans, A. H., Kimber, T. E., O'Sullivan, J. D., Malpas, C., Fielding, J., Velakoulis, D. & Law, M.  
1/06/20 → 31/05/26

**Spinal Cord Research**

Davies, S., Davies, J. & O'Brien, T.  
StepAhead Australia Ltd  
13/07/19 → 30/06/22

**Testing novel anti-epileptic compounds in human in vitro seizure model.**

Rollo, B., O'Brien, T. & Kwan, P.  
Epidarex Exeed Limited  
11/01/21 → 10/04/21

**Testing of Epidarex Exeed compounds for anti-epileptiform activity in a human neural in vitro assay**

Rollo, B., O'Brien, T., Kwan, P. & Javaid, S.  
1/09/21 → 1/03/22

**Testing of the effect of E2730 treatment on multimodality in-vivo biomarkers of GABAergic function in healthy rats and preclinical chronic epilepsy models**

O'Brien, T., Kwan, P., Ali, I., Casillas-Espinosa, P., Jones, N., Jupp, B., Vivash, L., Wright, D., Mychasiuk, R. & Major, B.  
Eisai Inc (United States of America)  
22/10/20 → 21/10/21

**REVIVER: The Assessment of a Novel Form of Exercise on Parkinsonism**

Sinclair, B., O'Brien, T., Bertram, K., Fielding, J., Clough, M. & White, O.  
Redmond Company Pty Ltd  
15/12/18 → 29/07/21

**The contribution of monocytes and P2X7 Receptor in Multiple Sclerosis relapse.**

Monif, M., Butzkueven, H., O'Brien, T. & Stankovich, J.  
2/03/21 → 31/12/21

**The contribution of monocytes and P2X7 Receptor in Multiple Sclerosis relapse.**

Monif, M., Butzkueven, H., O'Brien, T. & Stankovich, J.  
2/02/22 → 31/12/23

**The development and management of post traumatic epilepsy**

Laing, J. & O'Brien, T.  
1/01/19 → 31/01/21

**The Development and Management of Post-Traumatic Epilepsy.**

Laing, J., O'Brien, T., Kwan, P. & Perucca, P.  
Brain Foundation  
2/12/18 → 31/12/19

**The role of microglia and P2X7 Receptor in human gliomas – a translational study**

Monif, M., Drummond, K. J., O'Brien, T., Williams, D. & Kan, K.  
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1/01/19 → 31/12/19

**Transforming the paradigm of epilepsy care with precision medicine**

Wolvetang, E. J., Kwan, P., Vadlamudi, L., O'Brien, T., Ge, Z., Anderson, A., Shaker, M., Antonic-Baker, A., Leeson, H., Rollo, B. & Javaid, S.  
Department of Health and Aged Care (Australia)

1/06/21 → 31/05/24

**Translational platform for epilepsy therapy and biomarker discovery**

Galanopoulou, A. S., Moshe, S., Mowrey, W. B., Branch, C., Fleysler, R., Cui, M., Staba, R. J., Mazarati, A., Sankar, R., Agoston, D., Duncan, D., Cabeen, R., Coles, L., O'Brien, T., Toga, A. W., Bragin, A., Engel, J., Vespa, P., Harris, N., Wright, D., Jones, N., Shultz, S., Casillas-Espinosa, P., Hudson, M., Ali, I. & Braine, E.

NIH - National Institutes of Health (United States of America)

15/04/22 → 31/03/23

**UNCOVERING THE HIDDEN GENETICS OF NON-LESIONAL FOCAL EPILEPSY**

Perucca, P., Berkovic, S. F., O'Brien, T., Kwan, P., Hildebrand, M. S., Scheffer, I. E. & McIntosh, A.

20/02/20 → 28/02/23

**Use of software for the analysis and study of neurological and psychiatric conditions in the pre-clinical setting**

O'Brien, T. & Casillas-Espinosa, P.

15/01/18 → 15/01/19