2016/17 Research, Development & Innovation Annual Report
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FOREWORD

The Walton Centre NHS Foundation Trust is the only specialist trust dedicated to providing comprehensive neurology, neurosurgery, spinal and pain management services and we are delighted to present our Research, Development and Innovation Annual Report for 2016/2017.

The Trust actively supports research and we have a dedicated Neuroscience Research Centre which facilitates research and innovation in pioneering work to discover new tests, treatments and technologies in all areas of neuroscience that can benefit our patients. We are proud to be involved in a number of collaborative studies with universities and commercial companies at local, national and international level.

We are pleased to report we have exceeded our recruitment target in 2016/17. We aim to conduct research that has a practical impact and this report outlines the studies we undertake at the Trust and provides details of our research publications.

We work in partnership with the Collaboration in Applied Health Research and Care: North West Coast (CLAHRC: NWC) and the Innovation Agency to support the translation of research into practice and facilitate the adoption of innovation to transform services and this report also provides details of the innovative projects our staff have undertaken.

We are committed to promoting opportunities for our patients to participate in research. In May 2017 we were pleased to celebrate International Clinical Trials Day by launching our Twitter campaign to raise awareness of the research we do and would like to thank our patients whose involvement is integral to the success of our research.

Dr Peter Humphrey
Non-Executive Director and Chair of the Research Development & Innovation Committee

Dr Andrew Nicolson
Medical Director and Executive Lead for Research and Development
OUR YEAR IN NUMBERS

1,961 patients recruited

111 active studies

£372k National Institute for Health Research Funding

£487k Clinical Research Network: North West Coast Funding

£312k Research Capability Funding

£620k Commercial income

81 Publications
INTRODUCTION

The Trust has a unique status as a specialist clinical neuroscience trust with an established reputation for delivering research and supporting innovation. The Research, Development and Innovation Annual Report for 2016/17 captures our achievements over the course of the last year and demonstrates our contribution to delivering the Trust’s Strategy:

“To be active in clinical research and pioneer new treatments and other methods of care for the benefit of patients.”

We are committed to supporting research and have developed a number of collaborations and partnerships especially with Universities across the North West Coast Region and throughout the UK. We are an active member of Liverpool Health Partners which aims to promote the region as a preferred location to undertake research and participated in the Clinical Research Review to align the University of Liverpool’s research strengths with NHS research priorities.

The Trust has a well-established record for investing in research based on our strengths and strategic priorities and which supports our clinical services. We have worked with clinicians and managers to develop our Research, Development & Innovation Strategy (2017-2020) to deliver a sustainable programme of research and innovation that helps address our clinical and strategic priorities and supports succession planning.
FOCUS ON RESEARCH

Our clinicians are committed to working in partnership to lead and undertake academic and commercial research in all aspects of neurological, neurosurgical and pain conditions to provide our patients with opportunities to participate in and benefit from research studies.

Research Studies

The Trust aims to excel at translating research findings into clinical practice to create new diagnostic investigations, treatments and technologies for the benefit of our patients and there were 113 open studies as at 31st March 2017, an increase of 12 studies from 101 in 2015/16. Appendix One provides details of on-going studies in 2016/17.

Figure One shows the cumulative recruitment for Trust NIHR adopted studies from 1st April 2016 to 31st March 2017.

Figure One - Cumulative recruitment for WCFT Portfolio studies from 01/04/2016 to 31/03/2017 against annual target of 1200
Figure Two shows how the Trust's annual recruitment compares favourably to recruitment figures for other trusts in the North West Coast region. The Trust recruited the fourth highest number of patients to portfolio studies in the North West Coast region during 2016/2017.

Figure Two - Total Recruitment for the Period 01/04/16 – 31/03/17 by all Trusts in the Clinical Research Network: NWC Region
Breakdown of Trust Research Portfolio by Sponsor

Figure Three shows the breakdown of the Trust's research portfolio by sponsor in 2016/17. The Trust received £620k from pharmaceutical and technology company sponsored projects in 2016/17.

**Figure Three - Breakdown of Trust Research Portfolio**

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCFT Sponsored Studies</td>
<td>21</td>
</tr>
<tr>
<td>WCFT Co-Sponsored Studies</td>
<td>04</td>
</tr>
<tr>
<td>Commercial Studies</td>
<td>42</td>
</tr>
<tr>
<td>Non-Commercial Studies</td>
<td>44</td>
</tr>
</tbody>
</table>
RESEARCH, DEVELOPMENT & INNOVATION FUNDING

The Trust received a total of £1,985,749 income in 2016/17 in relation to Research, Development and Innovation. Figure Four shows the breakdown of the Trust’s RDI income for 2016/17.

Figure Four – Research, Development and Innovation income for 2016/17

<table>
<thead>
<tr>
<th>Research, Development &amp; Innovation Income 2016/17</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIHR Grants</td>
<td>371,505</td>
</tr>
<tr>
<td>Collaborations with other organisations</td>
<td>30,043</td>
</tr>
<tr>
<td>NIHR Co-Sponsored studies</td>
<td>5,250</td>
</tr>
<tr>
<td>Research for Patient Benefits</td>
<td>46,440</td>
</tr>
<tr>
<td>Commercial Income</td>
<td>619,859</td>
</tr>
<tr>
<td>Charity Grants</td>
<td>109,215</td>
</tr>
<tr>
<td>Comprehensive Research Network</td>
<td>486,623</td>
</tr>
<tr>
<td>Research Capability Funding</td>
<td>312,014</td>
</tr>
<tr>
<td>Other</td>
<td>4,800</td>
</tr>
<tr>
<td>Total</td>
<td>1,985,749</td>
</tr>
</tbody>
</table>

The Trust received National Institute for Health funding in 2016/17 in respect of the following ongoing studies:

- A prospective cohort study of clinical predictors, disease mechanisms, costs and outcomes of Encephalitis in the UK ENCEPH, Chief Investigator: Professor Solomon;
- A Multi-centre randomised control trial comparing the clinical and cost effectiveness of trans-foraminal epidural steroid injection to surgical microdiscectomy for the treatment of chronic radicular pain secondary to prolapsed intervertebral disc herniation: nerve root block verses surgery (NERVES), Chief Investigator: Mr Wilby;
- Radiation Versus Observation following surgical resection of Atypical Meningioma: a randomised controlled trial (ROAM), Chief Investigator: Mr Jenkinson
A randomised patient assessor blinded controlled trial of External non-invasive peripheral nerve stimulation for chronic neuropathic pain following peripheral nerve injury (EN-PENS), Chief Investigator: Ms Johnson

**Research Capability Funding**

Research Capability Funding (RCF) is allocated in proportion to the amount of NIHR funding secured and received in 2015/16. We received £312k Research Capability Funding in 2016/17. This includes £75,000 in relation to Professor Solomon’s role as a NIHR Senior Investigator, in recognition of his status as a pre-eminent researcher representing the country’s most outstanding leaders of clinical and applied health research.

**Clinical Research Network: North West Coast Funding**

We received a total of £486,623 in 2016/17 from the Clinical Research Network: North West Coast (CRN: NWC) to support the delivery of clinical research.

We received additional funding of £14,892 in 2016/17 to support the CRN: NWC in delivering a joint patient and public engagement project and we were awarded further funding of £22,431 to support initiatives to increase recruitment to studies.

We received Network Research Capability Funding of £25,157 in recognition of our studies meeting recruitment targets within the designated timeframe.

Professor Young is the Specialty Group Lead for Division 4 responsible for supporting clinical colleagues across the region in the delivery of clinical research in dementias and neuro-degeneration and neurological disorders. This post attracts £10k per annum.
Figure Five shows how the Trust compares in relation to RCF secured in 2016/17 with trusts across the North West Coast Region.

**Figure Five - Research Capability Funding (RCF) Allocation across North West Coast Trusts for 2016/17**
**Capacity Building**

We encourage all staff to participate in research that benefits patients and the Trust funded one MRes place at Edge Hill University in 2016/17 to build our research capability. The Trust awarded Research Capability to two allied health care professionals to support them in developing and submitting applications for NIHR Fellowships.

**Research Governance**

We underwent inspection by the Medicines and Healthcare products Regulatory Agency in November 2016 and have committed to implementing a quality management system to ensure our research is undertaken in compliance with regulations.

**Research Publications**

The Trust strongly supports the promotion of research and dissemination of results to improve clinical practice. Appendix Two provides details of our publications in 2016/17.

**Research Impact**

We aim to excel at translating research findings into clinical practice to create new diagnostic investigations, treatments and technologies for the benefit of our patients. The Trust was part of a multi-centre trial that lasted for nine years and which has led to the first oral drug for patients with Multiple Sclerosis being available on prescription, Fingolimod, in tablet form. Before this breakthrough patients would have had to inject themselves, sometimes every other day, to prevent a relapse of their condition.
WALTON CENTRE NHS FOUNDATION TRUST’S RESEARCH COLLABORATIONS AND PARTNERSHIPS

Liverpool Health Partners (LHP)
Liverpool Health Partners (LHP) brings together clinical and scientific expertise to develop world-leading research that draws on the strength from within each of the founding partner organisations. We are a member of LHP which aims to create a strategic partnership for improving health and pursuing excellence in the delivery of health care research and education. In addition, the Trust’s Director of Finance, Mike Burns, is a member of the LHP Governance Committee.

We are represented on the Joint Research Office (JRO) Sponsorship Committee, the JRO Oversight Committee and LHP’s Board.

Clinical Research Network: North West Coast
The Clinical Research Network: North West Coast (CRN: NWC) supports the Government’s Strategy for UK Life Sciences by improving the environment for commercial clinical research in the NHS. The CRN: NWC supports the Trust in undertaking neurosciences research to ensure we set up studies quickly, conduct studies efficiently and meet study recruitment targets.

We are committed to increasing the opportunities for patients to participate in clinical research and recognise the important contribution patients make to our research success. We held a number of coffee, cake and a slice of research events to promote research at the Trust which proved to be extremely popular.

We are a member of the CRN: NWC’s Partnership Group and the Building Research Partnerships Programme and worked in collaboration with the Network to celebrate International Clinical Trials day in May 2016. We also worked in partnership with the Network to produce a number of films by the Chief Executive, and researchers at the Trust to promote the benefits of research to patients and demonstrate the Trust’s commitment to supporting research.
Collaboration for Leadership in Applied Health Research and Care: North West Coast (CLAHRC: NWC)

We are a partner in the Collaboration for Leadership in Applied Health Research and Care: North West Coast (CLAHRC: NWC) which is hosted by Liverpool Clinical Commissioning Group. We work in partnership with local universities, other NHS organisations and local government. We are a member of the CLAHRC: NWC Steering Board and the Steering Board Sub-Committee. The partnerships’ focus is on improving patient outcomes through the conduct and application of applied health research and reducing health inequalities.

North West Coast Genome Medicine Centre

The Government’s 100,000 Genomes Project has committed to sequencing 100,000 whole human genomes by September 2018 to accelerate the benefits arising from innovations in genomics for NHS patients and contribute to economic growth by establish the UK as the leading international base for genomics science and industry.

We are a local delivery partner in the North West Coast NHS Genomic Medicine Centre (NWC GMC) which is hosted by Liverpool Women’s NHS Foundation Trust. We recruited 54 DNA samples from patients with rare inherited neurological diseases and patients with rare brain tumours in 2016/17.

FOCUS ON INNOVATION

Innovation Agency: the North West Coast’s Academic Health Science Network

We are a member of the Innovation Agency, the Academic Health Science Network for the North West Coast, which aims to be a catalyst for the spread of innovation by connecting the NHS, academia, local authorities and business to improve health and generate economic growth.

We support the Innovation Agency’s innovation scout programme which aims to help trusts to adopt innovation more effectively. We were successful in securing a bursary
for an educational visit to Odense University Hospital in Denmark for the Deputy Head of IT in 2016. The visit resulted in the adoption of a process for managing patient flow to improve back office efficiency in managing IT jobs which enabled the Trust to free up IT staff time to upgrade software on Trust computers. The project has been shared as part of World Health Innovation Week.

**Roy Ferguson Compassionate Care Award**

We were delighted to congratulate Kath Tyler, Radiographer, who was a category winner in Merseyside Woman of the Year 2016 Awards and collected the Healthy Liverpool Health Care Professional of the Year Award. She was nominated for her work in establishing the claustrophobia clinic which helps patients that are fearful of confined spaces to have a MRI scan without the need for a general anaesthetic. The project had been funded by the Roy Ferguson Compassionate Care Award which was established following the generous donation by one of the Trust’s governors, Mrs Louise Ferguson, in tribute to her late husband.

**LOOKING AHEAD TO 2017/18**

We are pleased with our progress over the last 12 months and are keen to further develop our research and innovation activities in collaboration with our partners.

We aim to build on our success and will continue to implement the Research, Development & Innovation Strategy in 2017/18. Our strategy is integral to sustaining our research strengths and ensuring we attract, retain and develop our staff to undertake clinical research to develop the pioneering treatments that benefit our patients. In addition we will maintain our progress with the implementation of the quality management system to facilitate high quality research and ensure it is compliant with regulations.

We will endeavour to effectively promote our research to encourage patients to participate in our studies and continue to seek innovative approaches to raising awareness of the range of research and innovative projects we undertake.

We recognise the importance of innovation in delivery of high quality, cost effective services and look forward to working closely with the Innovation Agency in the forthcoming year.
Appendix One

Active Studies: 01/04/2016–31/03/2017

NEUROLOGY

BRAIN INFECTION

A prospective cohort study of clinical predictors, disease mechanisms, costs and outcomes of encephalitis in the UK.
Investigator- Professor T. Solomon

Development and evaluation of an intervention based around the National guidelines on the management of suspected encephalitis, and its evaluation through a cost effectiveness analysis - ENCEPH UK Intervention RCT V1.0.
Investigator – Professor T. Solomon

DexEnceph: A pragmatic, randomised, controlled, observer-blind trial comparing clinical outcomes in adults who receive dexamethasone alongside standard treatment versus standard treatment alone for Herpes Simplex Virus encephalitis.
Investigator – Professor T. Solomon

CLUSTER HEADACHES / MIGRAINE

A Phase 3 randomised, double-blind, placebo-controlled study of LY2951742 with a long-term open-label extension in patients with chronic cluster headache
Investigator – Dr N. Silver

A randomised, multicentre, double-blind, parallel, sham-controlled study of the gammacore, a non-invasive neurostimulator device, for the prevention of episodic migraine.
Investigator – Dr N. Silver

A Phase 3 Randomised, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Episodic Cluster Headache
Investigator – Dr N. Silver

A Phase 3 Study to evaluate AMG334 in Episodic Migraine Prevention (AMGEN)
Investigator – Dr N. Silver
A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Episodic Migraine – the EVOLVE-2 Study

*Investigator – Dr N. Silver*

A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study of LY2951742 in Patients with Chronic Migraine – REGAIN Study

*Investigator – Dr N. Silver*

Pathway CH S&E Registry. Data Collection on the ATI Neurostimulation System: SPG Stimulator for Cluster Headache

*Investigator – Dr N. Silver*

**CHRONIC INFAMMATORY DEMYELINATING POLYRADICULONEUROPATHY (CIDP)**

A double/blind, randomized, multicenter, placebo/control, parallel/group study to evaluate the efficacy and safety of 0.5 mg fingolimod administered orally once daily versus placebo in patients with chronic inflammatory demyelinating polyradiculoneuropathy (CIDP).

*Investigator - Dr J. Holt*

A Phase III Study to Evaluate the Efficacy, Safety, and Tolerability of Immune Globulin Infusion 10% (Human) with Recombinant Human Hyaluronidase (HYQVIA/HyQvia) and Immune Globulin Infusion (Human), 10% (GAMMAGARD LIQUID/KIOVIG) for the Treatment of Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP)

*Investigator – Dr J. Holt*

**EPILEPSY**

A pragmatic randomised controlled trial comparing the effectiveness and cost effectiveness of levetiracetam and zonisamide versus standard treatments for epilepsy: a comparison of Standard and New Antiepileptic Drugs (SANADII).

*Investigator - Professor A. Marson*

Molecular genetics of adverse drug reactions: from candidate genes to genome wide association studies.

*Investigator - Professor A. Marson*

Hypersensitivity Study: A Mechanistic Investigation into Drug and Chemical Induced Hypersensitivity Reactions. (HYST)

*Investigator - Professor A. Marson*
A Multicentre, Double-Blind, Randomized, Placebo-Controlled, Dose-Response Trial of YKP3089 as Adjunctive Therapy in Subjects with Partial Onset Seizures, with Optional Open-Label Extension.

**Investigator – Professor A. Marson**

Advanced MRI in newly diagnosed and intractable epilepsy

**Investigator – Professor A. Marson**

Improving access and coordination of care for adults presenting to emergency care with seizures: Care after presenting with seizures (CAPS)

**Investigator – Professor A. Marson**

An assessment of data from routine sources applied to a randomised controlled trial

**Investigator – Professor A. Marson**

Transitioning to Adult Healthcare: Understanding the current practice of transitional care for young people with epilepsy and co-morbid learning disability.

**Investigator – Professor A. Marson**

The relationship between objective cognitive ability and subjective cognitive ability and the moderating role of attentional control and perseverative thinking in people with Epilepsy

**Investigator – Professor A. Marson**

Liverpool Epilepsy Biobank.

**Investigator - Dr G. J. Sills**

UK Anti-Epileptic Drug Register.

**Investigator - Dr U. Wiesmann**

Neurodevelopment of Babies Born to Mothers with Epilepsy (NaME) Study.

**Investigator – Dr J. Winterbottom**

Developing a collaborative transition pathway for young people with epilepsy and their families, to explore knowledge transition and inform development of an informational intervention (TROPHY)

**Investigator – Dr J. Winterbottom**

A study of Transient Epileptic Amnesia, Accelerated Forgetting and Focal Retrograde Amnesia in Temporal Lobe Epilepsy

**Investigator – Dr C. Burness**

**GUILLAIN BARRE SYNDROME**
Clinical and biological determinants of disease course in Guillain Barré syndrome: a prospective UK wide observational study interfacing with the International Guillain Barré syndrome Outcome Study IGOS.

Investigator - Dr J. Holt

HUNTINGTONS DISEASE

Enroll-HD: A Prospective Registry Study in a Global Huntington's Disease Cohort.

Investigator - Dr R. Davies/Dr S. Alusi

A multicentre, multinational, randomised, double-blind, placebo controlled, parallel group study to evaluate the efficacy and safety of Laquinimod as treatment in patients with Huntington's Disease

Investigator – Dr R. Davies

IDIOPATHIC INTRACRANIAL HYPERTENSION (IIH)

Assessing the therapeutic efficacy and safety of an 11β-hydroxysteroid dehydrogenase type 1 inhibitor (AZD4017) in idiopathic intracranial hypertension (IIH).

Investigator – Dr A. Krishnan

INFECTION

Clostridium difficile-associated toxin disease: development of a tool to predict individual susceptibility based on environmental and genetic factors.

Investigator - Dr M. Steiger

MULTIPLE SCLEROSIS

TOP (Tysabri Observational Program).

Investigator - Dr M. Wilson

WA21092 Phase III Ocrelizumab Vs Rebif in Relapsing Multiple Sclerosis.

Investigator - Dr M. Wilson

A Multicentre Randomised, Double/Blind, Placebo/Controlled Study of the Efficacy of Natalizumab on Reducing Disability Progression in Subjects With Secondary Progressive Multiple Sclerosis (Ascend)

Investigator - Professor C. A. Young

CFTY720D2406: Long term, prospective, non-interventional, multinational, parallel cohort study monitoring safety in patients with MS recently initiated with fingolimod once daily or treated with another approved disease modifying therapy.

Investigator - Professor C. A. Young
A single arm, open label, multicentre study evaluating the long-term safety and tolerability of 0.5 mg fingolimod (FTY720) administered orally once daily in patients with relapsing forms of multiple sclerosis (Topic)

Investigator - Professor C. A. Young

A Phase III, multicentre, randomised, parallel/group, double blinded, placebo controlled study to evaluate the efficacy and safety of ocrelizumab in adults with Primary Progressive Multiple Sclerosis.

Investigator - Professor C. A. Young

A multinational, multi-centre, open-label, single-assignment extension of the MSLAQ301 (ALLEGRO) study, to evaluate the long-term safety, tolerability and effect on disease course of daily oral laquinimod 0.6 mg in subjects with relapsing-multiple sclerosis.

Investigator - Professor C. A. Young

An active extension of LAQ/5062 study. A multinational, multicentre, randomised, double/blind, parallel/group study, to evaluate the safety, tolerability and efficacy of two doses (0.3 mg and 0.6 mg) of Laquinimod, orally administered in Relapsing Remitting (R/R) Multiple Sclerosis (MS) subjects.

Investigator - Professor C. A. Young

TONiC - Trajectories of Outcome in Neurological Conditions: Quality of Life (QoL) and neurological disease.

Investigator - Professor C. A. Young

MSBASIS – A study of progression and outcomes in CIS and early MS

Investigator – Professor C. A. Young

A Multicenter, Global, Observational Study to Collect Information on Safety and to Document the Drug Utilization of TecfideraTM (Dimethyl Fumarate) When used in Routine Medical Practice in the Treatment of Multiple Sclerosis (ESTEEM)

Investigator – Professor C. A. Young

Patient Reported Outcomes with Fingolimod in Local Experience PROFILE.

Investigator - Professor C. A. Young

Abdominal massage for neurogenic bowel dysfunction in people with multiple sclerosis (AMBER Abdominal Massage for Bowel Dysfunction Effectiveness Research)

Investigator – Professor C. A. Young
A Multi-Arm Phase IIb Randomised, Double Blind Placebo-Controlled Clinical Trial comparing the Efficacy of 3 Neuroprotective Drugs in Secondary Progressive Multiple Sclerosis (MS SMART)

Investigator – Professor C.A. Young

Laquinimod for Primary Progression Multiple Sclerosis (ARPEGGIO PPMS)

Investigator – Professor C.A. Young

The Effects of Multiple Sclerosis on Brain Grey Matter.

Investigator - Dr A. Jacob

Patients with Multiple Sclerosis treated with Fingolimod: Real World UK Experience (MS Fine)

Investigator – Dr W. Pietkiewicz

A phase 2 proof of concept, double-blind, randomised, placebo-controlled study to evaluate the efficacy, safety, pharmacokinetics and pharmacodynamics of VSN16R for the treatment of spasticity in patients with Multiple Sclerosis.

Investigator – Dr W. Pietkiewicz

MYASTHENIA GRAVIS

A randomized, double-blind, placebo-controlled, multi-center study to evaluate the safety and efficacy of Eculizumab in subjects with refractory Generalized Myasthenia Gravis (GMG).

Investigator - Dr S. Sathasivam

A phase III, open-label, extension trial of ECU-MG-301 to evaluate the safety and efficacy of eculizab in subjects with refractory generalized Myasthenia Gravis (gMG)

Investigator – Dr S. Sathasivam

MOTOR NEURONE DISEASE

A comparison of the cognitive and behavioural characteristics of frontotemporal dementia with and without accompanying amyotrophic lateral sclerosis/motor neuron disease

Investigator – Professor C.A. Young

Effects of ODM-109 on respiratory function in patients with ALS. A randomised, double blind, placebo-controlled, cross-over, 3 period, multicentre study with open-label follow-up extention (LEVALS)

Investigator – Professor C.A. Young
Evaluation of a novel cervical orthosis to support neck weakness due to neurological disease (HEADS UP)

Investigator - Professor C.A. Young

A Phase 3, Multi-National, Double-Blind, Randomised, Placebo-Controlled, Stratified, Parallel Group, Study to Evaluate the Safety, Tolerability and Efficacy of Tirasemtiv in Patients with Amyotrophic Lateral Sclerosis (ALS)

Investigator – Professor C.A. Young

Investigating the role of metacognitive beliefs and processes in distress (depression and anxiety) in individuals with Motor Neurone Disease

Investigator – Dr S. Makin (Rachel Dodd)

NEUROMYELITIS OPTICA

Cognitive function and emotional wellbeing in people with NMO.

Investigator - Dr P. Moore

A Randomized, Double-Blind, Placebo-Controlled, Multi-Center Trial to Evaluate the Safety and Efficacy of Eculizumab in Patients with Relapsing Neuromyelitis Optica (ECU-NMO-301)

Investigator – Dr A. Jacob

A Phase III, Open-Label, Extension Trial of ECU-NMO-301 to Evaluate the Safety and Efficacy of Eculizumab in Patients With Relapsing Neuromyelitis Optica (ECU-NMO-302)

Investigator – Dr A. Jacob

Study of Autoimmune diseases of the nervous system: epidemiology, clinical features, radiological, genetic, immunology, treatment, economic analysis and health related quality of life factors (ADONeSS)

Investigator – Dr A. Jacob

PALLIATIVE CARE

Evaluation of the clinical and cost-effectiveness of Short-term Integrated Palliative Care Services (SIPC) to OPTimise CARE for people with advanced long-term Neurological conditions (OPTCARE Neuro).

Investigator – Professor C. A Young
PARKINSON’S DISEASE

PD MED Trial: A Large randomised Assessment of the Relative Cost-Effectiveness of Classes of Drugs for Parkinson’s disease.

*Investigator – Dr A.P. Moore*

PRoBaND: Parkinson's Repository of Bio samples and Network Datasets: Prospective observational study of Parkinson's disease with repeat clinical assessment and bio banking of blood samples.

*Investigator - Dr M. Steiger*

The Parkinson’s Pain Study.

*Investigator - Dr M Steiger*

A Multicenter Noninterventional Study to evaluate the effectiveness of Neupro® (Rotigotine Transdermal Patch) and Levodopa Combination Therapy in patients with Parkinson’s Disease (NEUPART).

*Investigator – Dr M. Steiger*

Multicenter, parallel-group, double-blind, placebo-controlled phase III study to evaluate the efficacy and safety of apomorphine subcutaneous infusion in Parkinson’s disease patients with motor complications not well controlled on medical treatment -TOL EDO study.

*Investigator – Dr M. Steiger*

Efficacy and Safety of Opicapone in Clinical Practice in Parkinson’s Disease patients with wearing-off motor fluctuations.

*Investigator – Dr M. Steiger*

STROKE / NEUROVASCULAR

Vertebral artery Ischaemia Stenting Trial (VIST).

*Investigator – Dr A. Sekhar*

A symptomatic Carotid Surgery Trial/2 surgery versus stenting.

*Investigator – Dr A. Sekhar*

Surpass Flow Diverter for Intracranial Aneurysms: Surmount.

*Investigator -Dr H. Nahser*

Adjunctive wide-neck aneurysm reconstruction (AWARD)

*Investigator – Dr H.Nahser*
ASPIRE: Adult Spasticity International Registry on BOTOX ® Treatment.
*Investigator - Dr G Bavikatte*

**NEUROPSYCHOLOGY**

Focus group: An exploration into key quality of life themes in young adults with chronic pain.
*Investigator – Dr H. Twiddy*

Detecting and Alleviating Language Impairments Due to Traumatic Brain Injury.
*Investigator - Dr R. Bracewell*

Remembrin - Rehabilitation of Memory following Traumatic Brain Injury – a Phase III Randomised Controlled Trial.
*Investigator - Ms C. McMahon*

Relationships between early life events, individual differences, and seizures.
*Investigator – Professor A. Marson (Ms L.M Tallentire)*

Cognitive Rehabilitation for Attention and Memory for people with Multiple Sclerosis (CRAMMS): A pragmatic randomised controlled trial
*Investigator – Dr P. Moore (Ms C. Pollard)*

Questionnaire-Based Study on Effort Testing in Contemporary UK Neuropsychological Practice
*Investigator – Dr P. Moore*

**NEURO-SURGERY**

Randomised Evaluation of Surgery with Craniotomy for patients Undergoing Evacuation of Acute Subdural Haematoma (RESCUEASDH).
*Investigator - Ms C. McMahon*

Collaborative European Neuro-Trauma Effectiveness Research in TBI: a prospective longitudinal observational study (CENTER TBI)
*Investigator – Ms C. McMahon*

Registry of Deep Brain Stimulation with the VERCISE™ System: Vercise DBS Registry
*Investigator - Professor P. Eldridge*
Product Surveillance Registry - A prospective, non-interventional registry providing continuing evaluation and periodic reporting of product safety, effectiveness and patient outcomes across Medtronic market released products within diabetes, cardiac rhythm disorders, urological, gastrointestinal, spinal, orthopaedic, neurological and ear nose and throat conditions.

Investigator – Professor P. Eldridge

An exploration of PTSD and psychosocial adjustment following awake and asleep craniotomy

Investigator – Dr P Moore (Ms R. Aitchison)

An evaluation of cfibre function pre/post cordotomy: an investigation into the roles of C tactile afferents in affective touch

Investigator – Dr M. Sharma

The British Antibiotic and Silver Impregnated Catheters for ventriculoperitoneal Shunts multicentre.

Investigator - Mr M. Jenkinson

NEURO-ONCOLOGY

National Brain Tumour Study NBT.

Investigator - Mr M. Jenkinson

GALA-BIDD - Improving the intra-operative diagnosis of high-grade glioma using a fluorescence biomarker Study.

Investigator – Mr M. Jenkinson

Radiation versus observation following surgical resection of Atypical Meningioma: a multi-centre randomised trial (ROAM)

Investigator – Mr M. Jenkinson

BRAcED: A qualitative study of patient perspectives on factors affecting timely diagnosis of primary brain tumours.

Investigator – Mr M. Jenkinson

Ketogenic diets as an Adjuvant Therapy In Glioblastoma: A Randomised Pilot Study

Investigator – Mr M. Jenkinson
PAIN

Efficacy and Safety of Lidocaine 5% medicated plaster in localized chronic post-operative neuropathic pain.
Investigator - Dr B. Frank

CV Long-term Safety of Naldemedine for the Treatment of OIC.
Investigator - Dr B. Frank

A 4 week phase 2a, multicentre, randomised, double-blind, placebo-controlled add-on Study into safety, tolerability and efficacy of 200 mg t.i.d. of PL37 in patients with peripheral neuropathic pain of diabetic origin treated with pregabalin or gabapentin
Investigator – Dr B. Frank

The Cognitive Impact of Gabentinoids in Patients with Fibromyalgia
Investigator – Dr B. Frank

LIPS - A multicentre (UK) double-blind randomised parallel group placebo controlled trial to evaluate the efficacy, safety, and tolerability of Intravenous Immunoglobulin (IVlg) 0.5g/kg plus standard treatment, versus matched placebo plus standard treatment in patients with longstanding Complex Regional Pain Syndrome.
Investigator - Dr A. Goebel

National registry for patients with complex regional pain syndrome.
Investigator - Dr A. Goebel

Mycophenolate Treatment for Longstanding Complex Regional Pain Syndrome (MYPS I)
Investigator – Dr A. Goebel

Investigation into the pathogenic role and function of IgG serum autoantibodies in complex regional pain syndrome
Investigator – Dr A. Goebel

Cortical Excitability in Neuropathic Pain - Investigating the combined effects of pregabalin and repetitive.
Investigator - Professor T. Nurmikko/ Dr B. Frank

A PRospEctive post market trial of Drg stImulation with the commercially available axium neurosTimulator system.
Investigator - Dr M. Sharma

A qualitative investigation of assessing women’s subjective experience of pelvic pain and the impact this has on their lives.

Investigator – Dr H. Twiddy


Investigator – Dr H. Twiddy

Repetitive Transcranial Magnetic Stimulation (rTMS) in the long-term management of chronic neuropathic pain – an observational study.

Investigator – Dr S. Gulati

Nerve Root Block Versus Surgery (NERVES) study.

Investigator – Mr M. Wilby

Investigation of sensory symptoms associated with Transcranial Magnetic Stimulation (TMS) in healthy volunteers and patients with neuropathic pain Study

Investigator – Dr S. Gulati/Dr P. Sacco

A randomised patient-assessor blinded controlled trial of External non-invasive peripheral nerve stimulation for chronic neuropathic pain following peripheral nerve injury (ENPENS)

Investigator – Ms S. Johnson

A Randomised, double-blind, placebo-controlled, parallel-group study to evaluate the Efficacy and Safety of BIIB074 in subjects with Neuropathic Pain from Lumbosacral Radioculopathy.

Investigator – Dr B. Frank

NEURO-RADIOLOGY

Direct visualization of cervical nerve roots within the exit foramina using high-resolution 3D acquisition and oblique planar reconstruction

Investigator - Dr M. Radon

Pilot study on use of Sulphur hexafluoride Microbubbles as a Magnetic Resonance Imaging contrast agent in the imaging of brain tumours – Mr Bubbles

Investigator – Dr K Das
STUDENT PROJECTS

A pilot validation study to establish the effectiveness of a screening tool to identify subtle cognitive and occupational performance problems in a sample of acquired brain injury patients admitted to a neurological hospital in the UK

Investigator – Ms S. Simpson

Informing the development of a Core Outcome Set for patients who have undergone surgery for Cauda Equina Syndrome.

Investigator – Dr N. Srikandarajah
Appendix Two
Publications: 01/04/2016–31/03/2017

NEUROLOGY

BRAIN INFECTION


Viral meningitis: current issues in diagnosis and treatment: McGill F.; Griffiths M.J.; Solomon T. in Current Opinion in Infectious Diseases, January 2017(no pagination), 0951-7375;1473-6527 (23 Jan 2017)

Acute bacterial meningitis in adults.: Panagiotou, Stavros; McGill, Fiona; Solomon, Tom; Heyderman, Robert S.; Tunkel, Allan R. in Lancet; Dec 2016; vol. 388 (no. 10063); p. 3036-3047

The Interleukin-1 Balance during Encephalitis Is Associated with Clinical Severity, Blood-Brain Barrier Permeability, Neuroimaging Changes, and Disease Outcome: Michael B.D.; Griffiths M.J.; Granerod J.; Brown D.; Keir G.; Wnek G.; Cox D.J.; Vidyasagar R.; Borrow R.; Parkes L.M.; Solomon T. in Journal of Infectious Diseases, May 2016, vol./is. 213/10(1651-1660), 0022-1899;1537-6613 (15 May 2016)


Herpes simplex encephalitis is linked with selective mitochondrial damage; a post-mortem and in vitro study: Wnek M.; Ressel L.; Ricci E.; Rodriguez-Martinez C.; Guerrero

Cellular Immune Responses to Live Attenuated Japanese Encephalitis (JE) Vaccine SA14-14-2 in Adults in a JE/Dengue Co-Endemic Area: Turtle L.; Tatullo F.; Solomon T.; Ravi V.; Venkataswamy M.M.; Fadnis P.; Bali T.; Soni M.; Chan S.; Chib S.; Satchidanandam V.; Yaich M.; Fernandez S.; Klenerman P. in PLoS Neglected Tropical Diseases; Jan 2017; vol. 11 (no. 1)


A comparison of HMGB1 concentrations between cerebrospinal fluid and blood in patients with neurological disease: Walker L.E.; Griffiths M.J.; McGill F.; Lewthwaite P.;
Sills G.J.; Jorgensen A.; Antoine D.J.; Solomon T.; Marson A.G.; Pirmohamed M. in Biomarkers, December 2016(1-8), 1354-750X;1366-5804 (07 Dec 2016)


CLUSTER HEADACHE


COGNITIVE DYSFUNCTION AND DEMENTIA


Correlation or Limits of Agreement Applying the Bland-Altman Approach to the Comparison of Cognitive Screening Instruments: Larner A.J. in Dementia and Geriatric Cognitive Disorders, October 2016(247-254), 1420-8008;1421-9824 (06 Oct 2016)


Diagnostic test accuracy of cognitive screeners in older people: Wojtowicz A.; Larner A.J. in Progress in Neurology and Psychiatry; Jan 2017; vol. 21 (no. 1); p. 17-21

MACE versus MoCA: equivalence or superiority? Pragmatic diagnostic test accuracy study: Larner A.J. in International Psychogeriatrics; Mar 2017; p. 1-7


EPILEPSY

An integrative in silico system for predicting dysregulated genes in the human epileptic focus: Application to SLC transporters: Mirza N.; Vasieva O.; Appleton R.; Burn S.; Carr D.; Crooks D.; du Plessis D.; Duncan R.; Farah J.O.; Josan V.; Miyajima F.; Moharanj R.; Shukralla A.; Sills G.J.; Marson A.G.; Pirmohamed M. in Epilepsia, September 2016, vol./is. 57/9(1467-1474), 0013-9580;1528-1167 (01 Sep 2016)


Epilepsy: when family history holds the key to diagnosis: Aji B.M.; Milburn-McNulty P.; Larner A.J. in Progress in Neurology and Psychiatry, September 2016, vol./is. 20/5(11-12), 1367-7543;1931-227X (01 Sep 2016)


Epilepsy and adverse quality of life in surgically resected meningioma: Tanti M.J.; Jenkinson M.D. in Acta Neurologica Scandinavica, 2016(no pagination), 0001-6314;1600-0404 (2016)


GENETICS

Mutations in SNORD118 cause the cerebral microangiopathy leukoencephalopathy with calcifications and cysts: Jenkinson E.M.; Rodero M.P.; Kasher P.R.; Uggenti C.;
MOTOR NEURONE DISEASE


MOYAMOYA

Bilateral encephaloduroarteriosynangiosis (EDAS) in a 6-year-old female for moyamoya disease: case report and technical note with 12-year follow-up: Dapaah A.; Barone D.; May P. in Child's Nervous System, April 2016, vol./is. 32/4(745-747), 0256-7040;1433-0350 (01 Apr 2016)

NEUROMYELITIS OPTICA


Chronic neuropathic pain severity is determined by lesion level in aquaporin 4-antibody-positive myelitis: Tackley G.; Vecchio D.; Hamid S.; Jurynczyk M.; Kong Y.; Gore


Cost-efficiency of specialist hyperacute in-patient rehabilitation services for medically unstable patients with complex rehabilitation needs: A prospective cohort analysis: Turner-Stokes L.; Bavikatte G.; Williams H.; Bill A.; Sephton K. in BMJ Open, September 2016, vol./is. 6/9(no pagination), 2044-6055 (01 Sep 2016)


Fitzpatrick D.; Certo F.; Javadpour M. in Journal of Clinical Neuroscience, June 2016, vol./is. 28/(87-92), 0967-5868;1532-2653 (01 Jun 2016)


Surgeon volume and 30 day mortality for brain tumours in England: Williams M.; Treasure P.; Greenberg D.; Brodbelt A.; Collins P. in British Journal of Cancer, November 2016, vol./is. 115/11(1379-1382), 0007-0920;1532-1827 (22 Nov 2016)


Serial imaging and management of ganglioglioma with unusual presentation and meningeal spread: Dapaah A.; Biswas S.; Srikandarajah N.; Crooks D.; Das K.; Farah J.O. in Acta Neurochirurgica, November 2016(1-3), 0001-6268;0942-0940 (16 Nov 2016)

Use of diffusion-weighted MRI to modify radiosurgery planning in brain metastases may reduce local recurrence: Zakaria R.; Jenkinson M.D.; Pomschar A.; Ertl-Wagner B.; Tonn J.-C.; Belka C.; Niyazi M. in Journal of Neuro-Oncology; Feb 2017; vol. 131 (no. 3); p. 549-554

NEURO-SURGERY


Neurogenic claudication secondary to degenerative spondylolisthesis: is fusion always necessary?: Kitchen W.J.; Mohamed M.; Bhojak M.; Wilby M. in British Journal of Neurosurgery, November 2016, vol./is. 30/6(662-665), 0268-8697;1360-046X (01 Nov 2016)

NEURO-VASCULAR


Novel use of 4D-CTA in imaging of intranidal aneurysms in an acutely ruptured arteriovenous malformation: Is this the way forward?: Chandran A.; Radon M.; Biswas S.; Das K.; Puthuran M.; Nahser H. in Journal of NeuroInterventional Surgery, September 2016, vol./is. 8/9(e36), 1759-8478;1759-8486 (September 2016)

NEURO-TRAUMA

The management of minor head trauma (GCS 15-13) across a Trauma Network: Pulhorn H.; Westmoreland L.; McMahon C. in British Journal of Neurosurgery, August 2016(1-5), 0268-8697;1360-046X (16 Aug 2016)

NEURO-RADIOLOGY
Radiation dose reduction in 4D cerebral CT angiography by individualized estimation of cerebral circulation time: Radon M.R.; Chandran A.; Bhojak M.; Das K.V. in American Journal of Neuroradiology, December 2016, vol./is. 37/12(2189-2194), 0195-6108;1936-959X (December 2016)

PINEAL AND PITUITARY

Incidental Pineal Cysts: Is Surveillance Necessary?: Nevins E.J.; Das K.; Bhojak M.; Pinto R.S.; Hoque M.N.; Jenkinson M.D.; Chavredakis E. in World Neurosurgery, June 2016, vol./is. 90/(96-102), 1878-8750;1878-8769 (June 2016)


PAIN

Motor Cortex Reorganisation and Repetitive Transcranial Magnetic Stimulation for Pain- A Methodological study: Nurmikko T; MacIver K; Bresnahan R; Hird E; Nelson A; Sacco P in Neuromodulation, October 2016; vol. 19 (no. 7)

BACK PAIN

Brain Areas Involved in Anticipation of Clinically Relevant Pain in Low Back Pain Populations with High Levels of Pain Behavior: Lloyd D.M.; Helbig T.; Findlay G.; Roberts N.; Nurmikko T. in Journal of Pain, May 2016, vol./is. 17/5(577-587), 1526-5900;1528-8447 (01 May 2016)

COMPLEX REGIONAL PAIN SYNDROME


FIBROMYALGIA

Functional connectivity with the default mode network is altered in fibromyalgia patients: Fallon N.; Chiu Y.; Nurmikko T.; Stancak A. in PLoS ONE, July 2016, vol./is. 11/7(no pagination), 1932-6203 (July 2016)

NEUROPATHIC PAIN


Long-Term Treatment of Chronic Neuropathic Pain Using External Noninvasive External Peripheral Nerve Stimulation in Five Patients: Johnson S.; Goebel A. in
A randomised, patient-assessor blinded, sham-controlled trial of external non-invasive peripheral nerve stimulation for chronic neuropathic pain following peripheral nerve injury (EN-PENS trial): Study protocol for a randomised controlled trial: Johnson S.; Goebel A.; Richey R.; Holmes E.; Hughes D. in Trials, December 2016, vol./is. 17/1 (no pagination), 1745-6215 (06 Dec 2016)