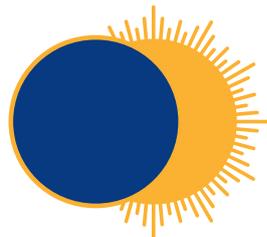


# Research Strategy

2019 – 2024



Royal Hospital for  
Neuro-disability

# Introduction

This paper sets out a five year research strategy developed after discussions with the board, the Executive Management Team (EMT) and researchers.

## Background

What is now the RHN research department was first established as an Institute in 2001 to provide an academic base to set standards, improve treatment and care for people with complex neurological disabilities, provide education for clinical professionals and influence practice nationally and internationally.

## Current status

### Infrastructure

The department has a well developed research governance infrastructure providing advice and guidance to researchers from project development, through ethics and grant applications to publication and dissemination.

### Activity and outputs

- Three staff undertaking a PhD
- Two external PhDs in collaboration with the RHN
- Two staff undertaking a masters degree
- Ten publications in peer-reviewed journals in 2018.

### Education

The department hosts a number of well received external courses and lectures each year.

### Archives

In 2018 we developed the historical archives service.

### Budget

The department is entirely supported by charitable income (2018/19 budget: £267K) and employs 8 staff (4.4 WTE) see appendix for details.



# Objective

The main objective of the RHN Research Strategy is to make a direct difference to patients and residents at RHN and elsewhere through improved clinical practice.

## Guiding principles

To drive the research programme:

### Excellence

- concentrate our research around agreed themes.
- collaborate with our patients and those who care for them to design and carry research projects.
- conduct research of the highest quality that has the potential to change clinical practice.
- support experienced clinicians to carry out research.

### Impact

- conduct research that is aligned to and supports our clinical strategy
- embed research findings into clinical practice
- share our clinical practice with others.
- build strong links with a wide variety of partners (academia, industry, charities).
- support our research to reach a global audience.

### Reputation

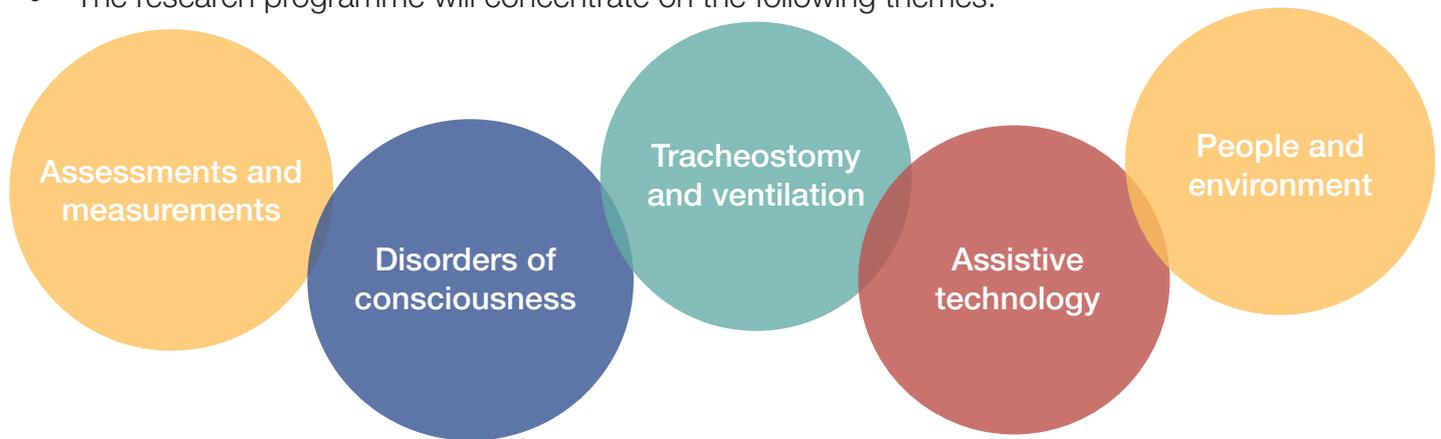
- promote our unique position to a worldwide audience as an organisation of major historical importance and a modern leading centre for neuro rehabilitation.



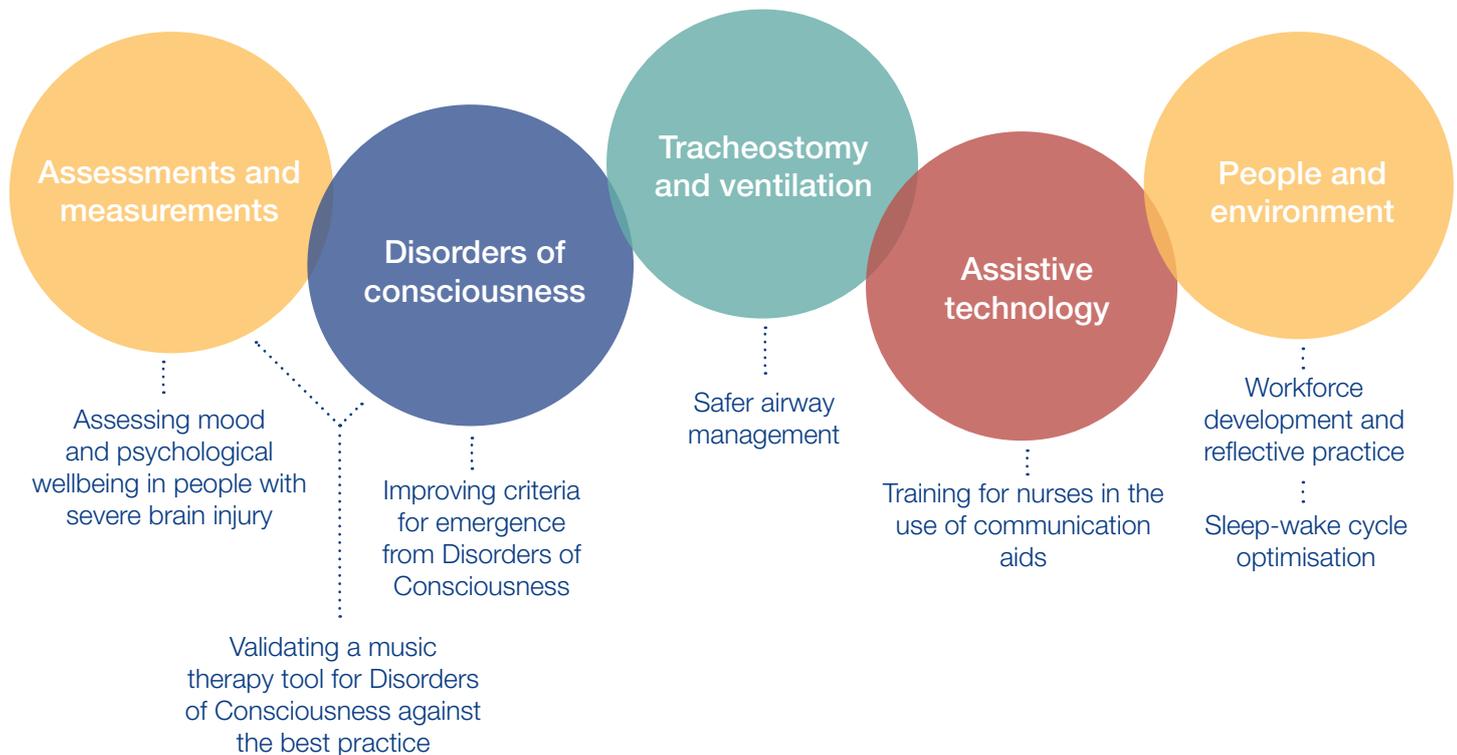
# How will we achieve our objective?

## 1 Research themes

- The research programme will concentrate on the following themes:



- Examples of existing projects under these themes:



(see appendix for more details about the projects)

- Themes will be reviewed on a regular basis by EMT. Any new idea for a project that does not fit within the themes would need to be approved first by EMT.
- Embrace new developments and technologies.
- Ensure that we meet or exceed the defined standards for research quality and integrity.
- Set defined success indicators for the research themes with Key Performance Indicators (KPIs), and monitor these annually through the Research Advisory Committee.

## 2 Research culture

- Maintain and grow the RHN PhD fellowship programme that offers a unique opportunity for clinicians to carry out research on a part-time basis (up to 0.6 WTE) whilst retaining their clinical post.
- Establish a support scheme for Postdoctoral Fellows that encourages outstanding clinical researchers to develop their own line of enquiries, research and innovation.
- Invest in research support services and research facilities (statistical support, IT, study space).
- Provide guidance, training, mentoring and support as required to equip all researchers with the skills needed to undertake robust research with the highest level of integrity and governance.
- Develop partnerships
  - locally (Clinical Research Network, Collaboration for Leadership in Applied Health Research and Care (CLAHRC), Roehampton university),
  - nationally (Huntington Disease Association, Imperial College London, Royal College of Physicians)
  - internationally (Spaulding rehabilitation, Liege Coma Science group).

## 3 Resources

- Ensure that resources for research are used to greatest effect and efficiency (actual budget: £267K).
- Diversify the portfolio of research income (European programmes, industry, public and private sources). Investigate new sources of funding such as crowdfunding.
- Improve the efficiency and effectiveness of research grant development and management by reviewing current processes and support.

## 4 Maximising impact

- Engage regularly with the Board, the EMT and senior manager forum
- Reinforce internal engagement and support clinical excellence (clinical audit, service evaluation, posters presentations, lunchtime takeaway)
- Support publication and disseminate findings widely outside of RHN and celebrate success in research and clinical practices.
- Strengthen the external profile of RHN by supporting staff to attend and present at relevant local, national and international events.
- Ensure researchers contribute to the education programme and participate actively in training courses.
- Use our website to enhance our reputation for excellence and share our knowledge freely to the benefit of all.

## 5 Dissemination and outreach



### Summary

The research strategy has strong foundations within the history and current clinical expertise of RHN. It builds upon the clinical strategy of RHN, aims to raise the quality of research and enhance the profile of RHN as a leading centre for the rehabilitation and long term care of adults with complex brain injury.

# Appendix

## Examples of ongoing projects under the different themes proposed

### Breathing/respiration

#### Tracheostomy decannulation and Prediction of Long Term Respiratory Health in severe brain injury.

This project aims to define decannulation success against long term respiratory and quality of life outcomes. It will also explore better methods for predicting outcome and improve our ability to establish the enhanced care that someone may need to remain well in the community.

**Investigators**  
Teresa Clark, Luke Rendell

**Project level**  
Research project

**Duration**  
Two years (not started yet- looking for funding)

### Assessments and measurements

#### Validating MATADOC against the best practice external reference standard.

Building on previous work, this project seeks to ensure that the Music Therapy Assessment Tool for Awareness in Disorders of Consciousness or “MATADOC accurately measures what it claims to measure by comparing its findings with the Coma-Recovery Scale Revised (CRS-R).

Collaboration with Dr Wendy Magee, Temple University, USA

**Investigator**  
Dr Kudret Yelden  
**Project level**  
Research project

**Duration: Three years**  
(started in 2018)

#### Assessing mood and psychological wellbeing in people with severe brain injury

The methods recommended for screening mood and psychological well-being are based primarily on studies of people with mild to moderate brain injuries who retain the ability to provide self-reports.

Our clinical experience at the RHN is that methods advocated in current guidelines are not fit for purpose for our clinical population.

The aims of the proposed project are to review current clinical practice in this area, expand the evidence base in relation to RHN patients and residents, and develop and trial alternative methods for assessment. This will then re-conceptualise the identification and management of mood and well-being in this patient group.

**Investigators**  
Alexandra Rose and  
Dr Sarah Crawford

**Project level**  
Part-time PhD

**Duration**  
Five years (due to start in 2019)

### Assistive technology

#### Developing a training intervention for nurses around the use of communication aids

This is a mixed-method study exploring the views of patients who use communication aids, nurses and healthcare Assistants staff, regarding the current training nursing staff receive in using communication aids.

The results from the interviews and focus groups will lead to the development of a new training for nurses on the wards.

**Investigator**  
Helen Paterson

**Project level**  
Part-time PhD

**Duration**  
Five years (started in September 2017)

### PDOC

#### Improving the diagnosis of emergence from a Disorder of Consciousness (DoC) – a mixed methods study.

To identify and evaluate a range of tasks to accurately determine emergence from DoC, which will (i) enable healthcare providers to appropriately target rehabilitation, and (ii) support complex decision making by staff and families around an individual’s care and management.

**Investigator**  
Amy Pundole

**Project level**  
Part-time PhD

**Duration**  
Five years (started in September 2018)

## People and environment

### Effect of Sleep-Wake Cycle Optimization on Neurological Rehabilitation

In this study we wish to establish whether optimising the sleep-wake cycle using environmental, physiological and pharmacological approaches in patients with brain injury is associated with overall improvement of daytime arousal/ vigilance, participation and engagement, mood, as well as clinical and neurophysiological measures of cognitive functioning.

**Investigator**  
Dr Kudret Yelden

**Project level**  
Post doc project

**Duration**  
Three years (due to start in 2019)

### Impact of reflective practice in nursing on patients and residents

This research is particularly important as reflection is now mandatory for all nurses in the UK as a requirement of their professional registration.

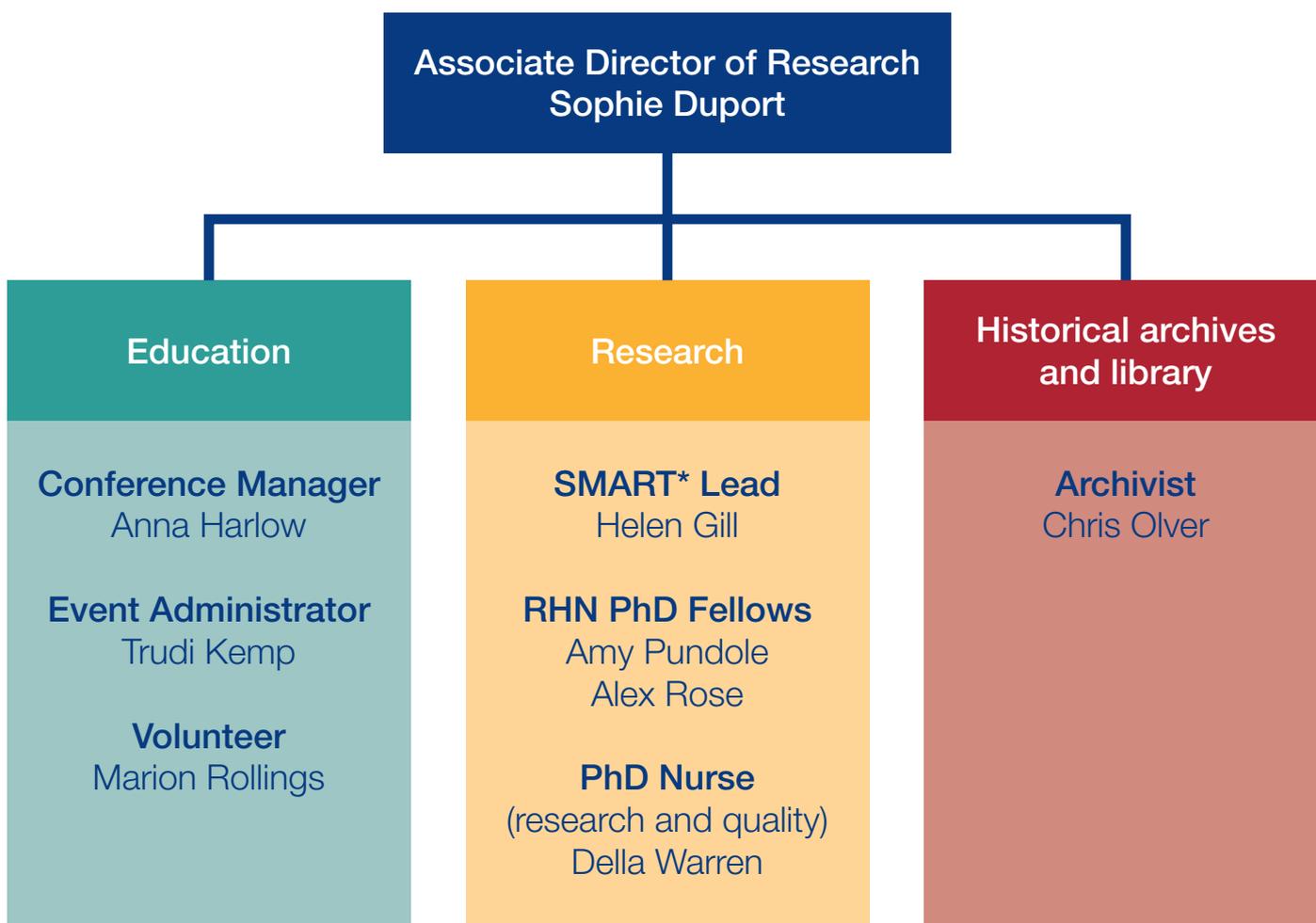
Della is hoping to fill the gap in available evidence to support how reflection in nursing impacts on the experience of patients and residents and how to best implement this in clinical practice.

**Investigator**  
Della Warren

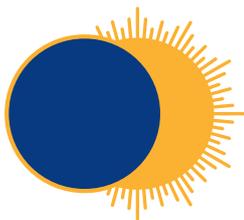
**Project level**  
Part time PhD

**Duration**  
Five years (started in September 2017)

## Staff and structure



\* Sensory Modality Assessment and Rehabilitation Technique



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