

# Leading Change

The Power of Collaboration and Thinking BIG

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INSTITUTE OF NEUROSCIENCE & MENTAL HEALTH



@AVERTtrial



@CREstroke



NHMRC CENTRE OF RESEARCH EXCELLENCE  
**Stroke Rehabilitation and Brain Recovery**

# Characteristics & Attributes of Allied Health Professionals



# My Experience of AH Professionals

1. Respected
2. Hard working (don't value our time enough)
3. Good at prioritising, action focused
4. Used to working in complex decision making environments
5. Powerful patient advocates
6. Strongly collegiate – team focused



**Good collaborators**

# Allied Health Trained Leaders

Discipline  
leaders

Policy  
leaders

Hospital  
leaders

Business  
leaders

Research  
leaders



**History**



**Collaboration**

**Recent BIG things**



**Growing influence**



## History



**"Julie is a sweet girl, but boy can she talk!" Mrs Smith, Prep 5**

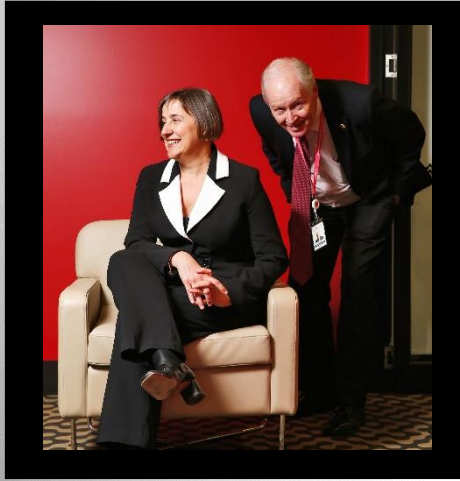
# Key early learnings

- A questioning & supportive environment fosters clinical research
- A colleague who shares your interests helps drive research
- Collaboration is fun and rewarding



**Julie rule #1 – Work with people you like**

# Transition and Growth



Clinician

Researcher

Advocate

Mentor



Leader

Think Big

Stroke Foundation board, clinical guidelines, clinical trials



Influence





Cooperation  
Collective action  
Collective impact

"Sharing changes everything"  
Clay Shirky

## Collaboration

Needs:

A focus/idea

Someone to start

Trust

Takes time

Grows momentum

Has risk



# Recent BIG things

**NOVELL**  
Rehabilitation redesign

Stroke Recovery and Rehabilitation  
First Roundtable



**wispp**  
WOMEN IN SCIENCE PARKVILLE PRECINCT



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**Wispp**  
WOMEN IN SCIENCE PARKVILLE PRECINCT

**Idea:** Earlier more intensive rehabilitation could reduce stroke related disability & be feasible worldwide

**Activity:** Phase I, II and III clinical trials



**Efficacy and safety of very early mobilisation within 24 h of stroke onset (AVERT): a randomised controlled trial**



The AVERT Trial Collaboration group\*

**Summary**

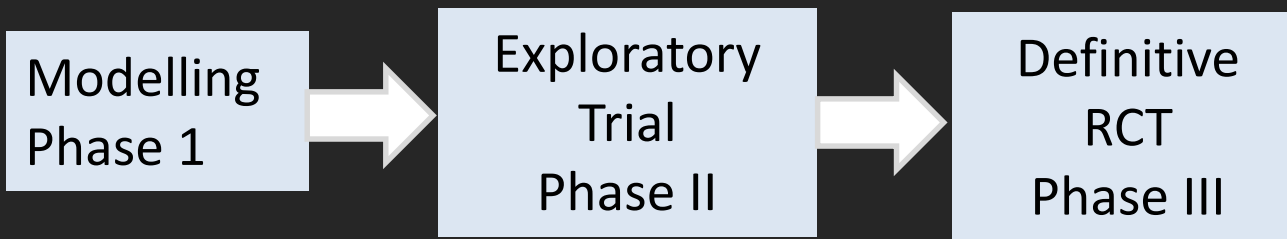
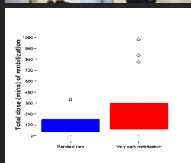
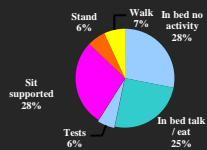
**Background** Early mobilisation after stroke is thought to contribute to the effects of stroke-unit care; however, the intervention is poorly defined and not underpinned by strong evidence. We aimed to compare the effectiveness of frequent, higher dose, very early mobilisation with usual care after stroke.



Published Online  
April 17, 2015  
[http://dx.doi.org/10.1016/S0140-6736\(15\)60690-0](http://dx.doi.org/10.1016/S0140-6736(15)60690-0)

**5 countries, 56 hospital teams, >2100 patients**

# The 'phasing' of AVERT



Intervention Outcomes

Feasibility (safety)  
Defining intervention

Fully defined/ measured intervention  
Does it work?

2002-2003

2004-2006

2006-2015

# AVERT: A pragmatic, 'real world' trial

## Design

International, multicentre, parallel group, randomised controlled trial testing efficacy and safety of a *very early (<24h) frequent, higher dose out of bed (very early mobilisation) protocol* compared to *usual care* post stroke.

## Clinical hypotheses

1. Improve functional outcome (mRS 0-2) at 3 months
2. Lead to fewer immobility complications at 3 months post stroke
3. Lead to more patients regaining the ability to walk early
4. Improve quality of life at 12 months
5. Be cost effective

# Trial pathway

Sample size  
n=2104

3+ additional sessions  
out of bed activity

Very Early Mobilisation + Usual Care

First intervention, < 24 hrs PT /Nurse team, 6 days/wk

Arrive hospital,  
screened, recruited <  
24 hrs

Stroke



Day 14  
Treatment  
ceases



3 month Ax

Stratified by  
stroke severity & site

Usual stroke unit care

1<sup>o</sup> Efficacy endpoint Favourable  
outcome (mRS 0-2)

Safety outcomes: death, SAEs,  
immobility, neurological

# Collaborative framework

Design Team

Interdisciplinary +  
Consumer

Treating team

Interdisciplinary

Management

Interdisciplinary +  
Consumer

Ownership

Mandatory

Engagement

Constant

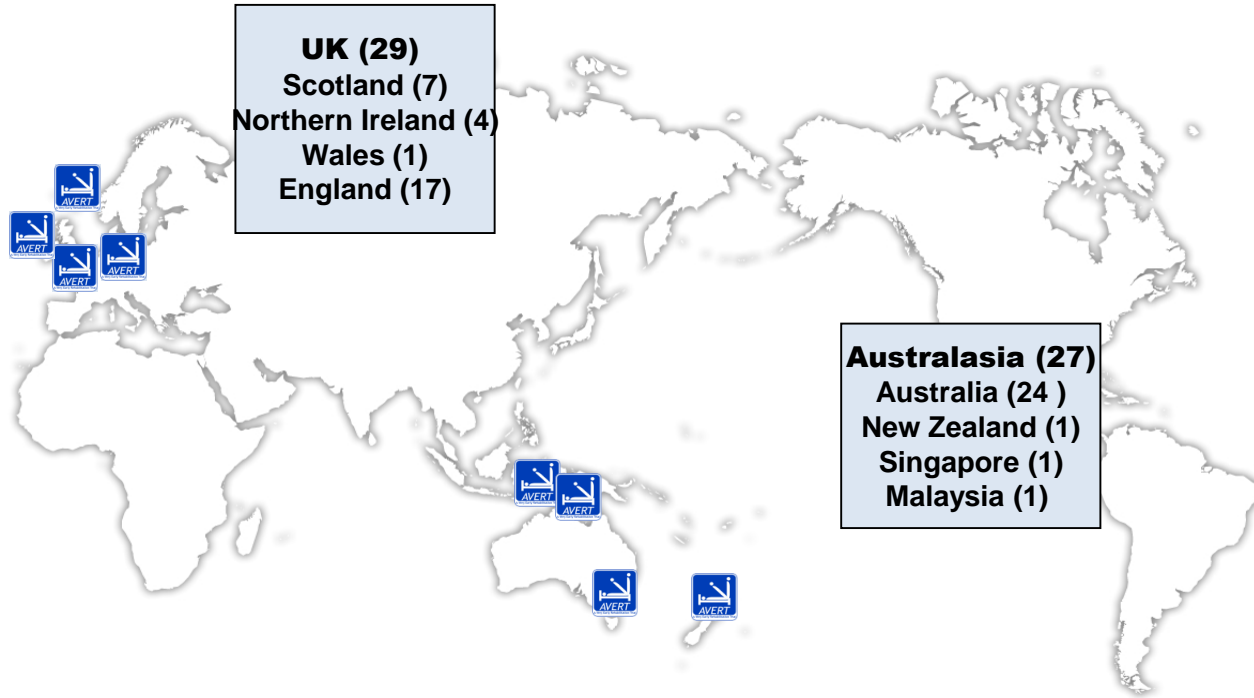
Celebrations

Routine

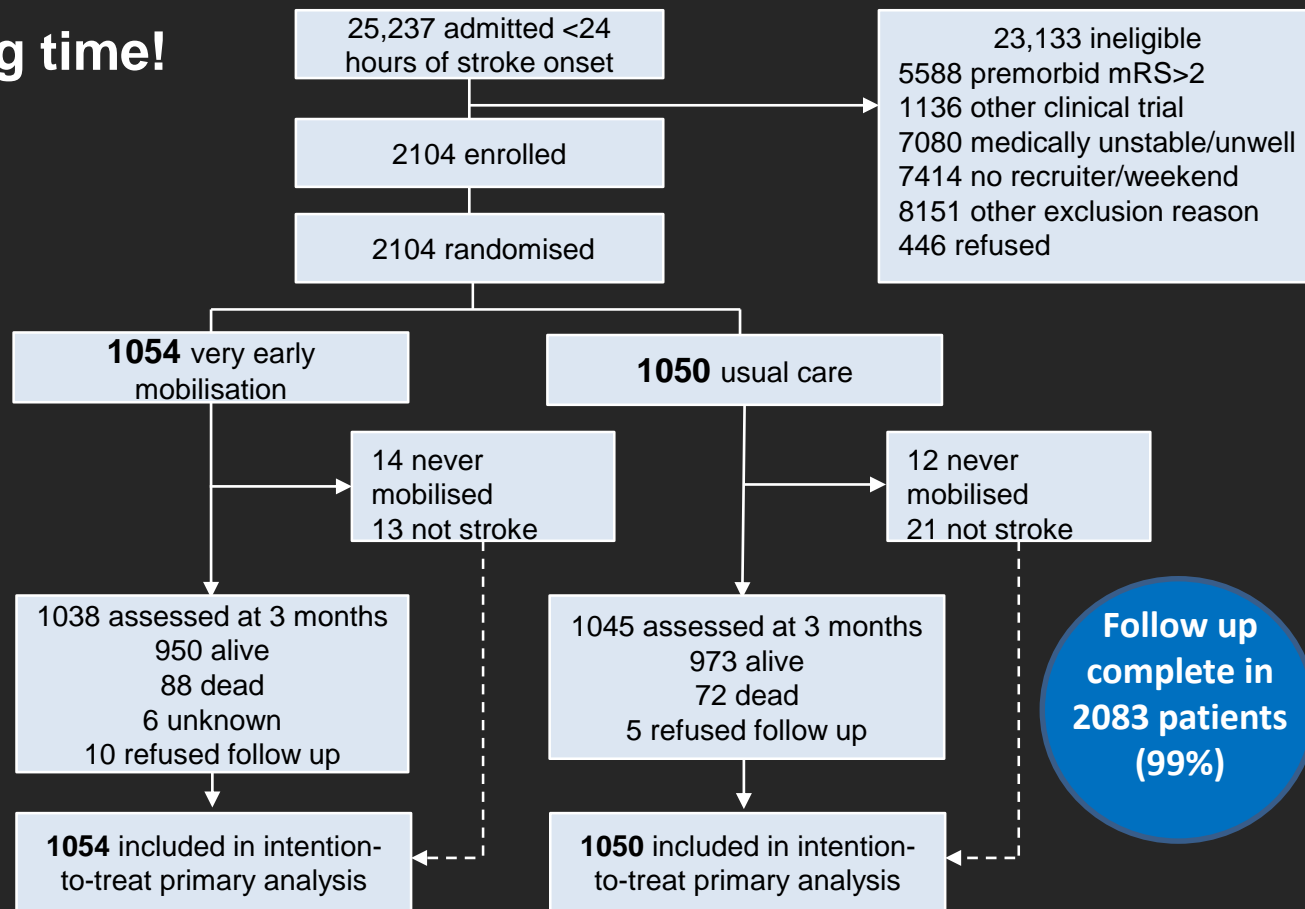




# International collaboration across 56 sites



**It took a long time!**



# Top level results

1. We achieved a significant difference in the frequency, amount and timing of rehabilitation, with most patients starting intervention <24 hours of stroke

2. The very early, higher dose out of bed activity protocol **reduced the odds of favourable outcome at 3 months**, *without* accelerating walking recovery or reducing immobility-related SAEs

'more is better' may not apply in the first few days after stroke

3. We found low rates of death & SAEs, but there were signals of harm in ICH and severe stroke and those aged >80 years

Treatment dose versus benefits/harms warranted further exploration

4. Pre-planned exploratory analyses show **frequency** and **amount** are important drivers of outcome

# What does this all mean?

1. We've shown that international therapy based complex trials can be done, and done really well
2. We know a lot more than we did before – but not exactly what to do early
3. Guideline creators are struggling to interpret the findings (as are clinicians)

*Bayley et al, IJS 2017*

4. More to do! **AVERT-DOSE** adaptive design & PhD student working with existing data to inform guidelines

# BMJ Christmas Edition, 2015

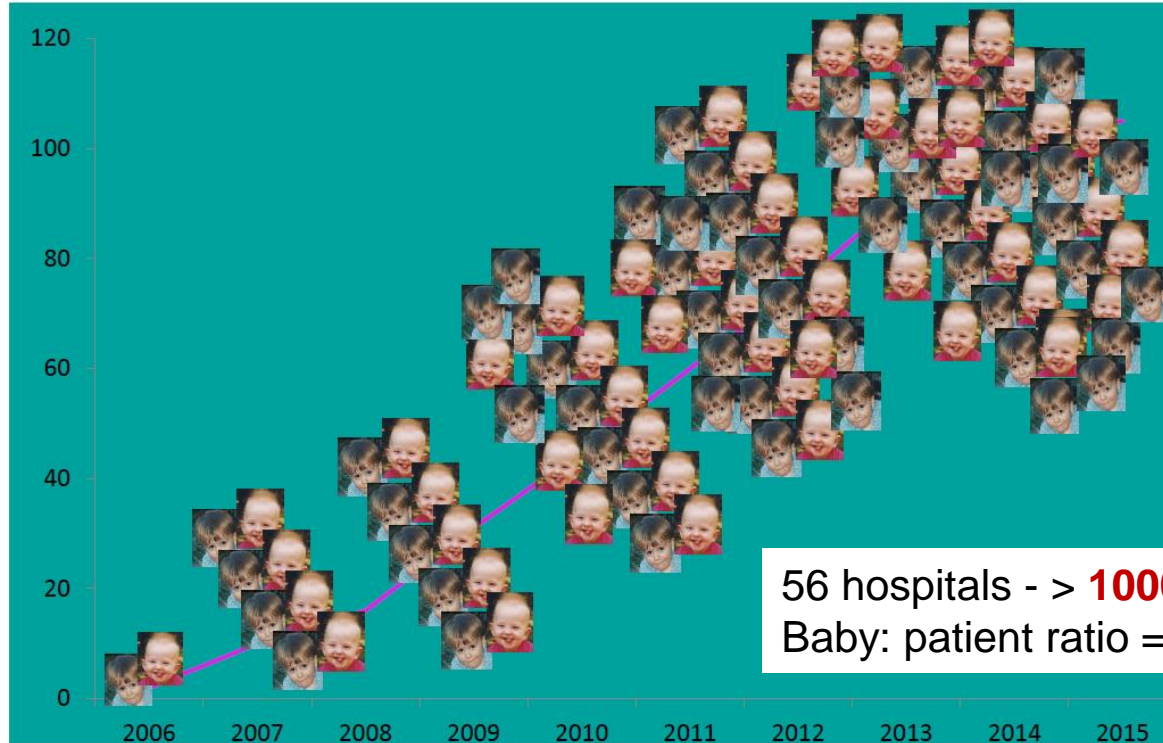


Bernhardt J, et al. AVERT<sup>2</sup> (a very early rehabilitation trial, a very effective reproductive trigger): Retrospective observational analysis of the number of babies born to trial staff. *British Medical Journal*. 2015;351:h6432

# Julie rule #2 – Work hard and have fun



## AVERT Baby Count



56 hospitals - > **1000** clinicians  
Baby: patient ratio = 1:19



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**wispp**  
WOMEN IN SCIENCE PARKVILLE PRECINCT

**Idea:** Link talented stroke recovery researchers to build capacity and change the landscape



**Activity:** 5 year, 20 investigator grant to undertake a work program ranging from *biology of recovery to implementation*



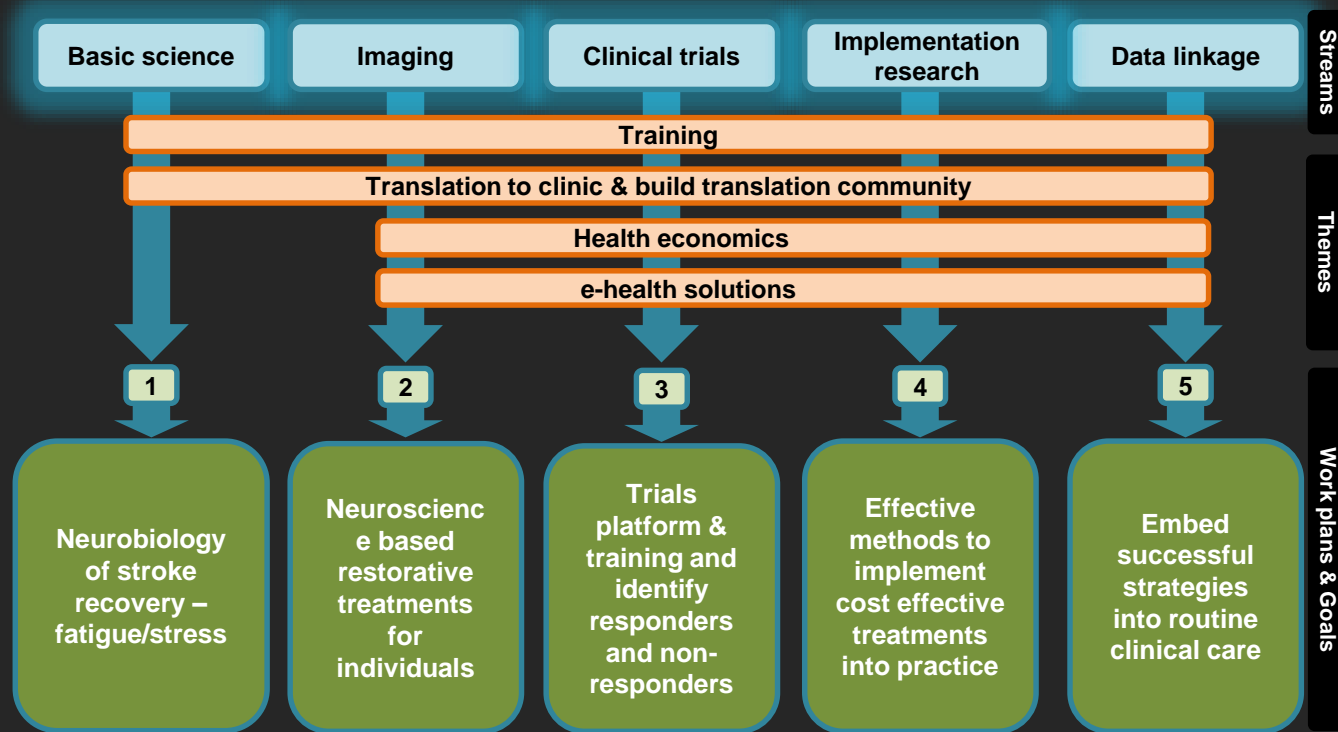
Future leaders



<http://strokerecovery.org.au> – sign up for newsletters [janmc@unimelb.edu.au](mailto:janmc@unimelb.edu.au)



# CRE streams and themes



# CRE training platform

Implementation workshops  
Clinical trials workshop  
Science communication  
Grant writing  
Research impact

#### Comments from 2016 participants:

“The workshops facilitated by experts were a fantastic learning experience. I particularly appreciated the opportunity to workshop a current ongoing trial.”

“If you are working on or wanting to design a RCT you need to go to this workshop. It teaches the essentials of designing and conducting trials.”

“Feel so inspired to improve trials I’m already involved in and to develop my own trials in future.”

“This Clinical Trials Management course has changed my life.”

Express your interest in this 2 day course or find out more by contacting Jan Chamberlain:

Email: [janmc@unimelb.edu.au](mailto:janmc@unimelb.edu.au)

Phone: 03 9035 7064

Register to attend at:  
<http://bit.ly/2rEb7lJ>

Registrations close:  
1st September 2017

NHMRC CRE Stroke  
Rehabilitation and Brain  
Recovery  
The Florey Institute of  
Neuroscience and Mental Health  
245 Burgundy Street  
Heidelberg VIC 3084

Supported by Boehringer Ingelheim



#### 2 day Clinical Trials Development and Management Workshop

Monday 11<sup>th</sup> and  
Tuesday 12<sup>th</sup>  
September 2017



NHMRC CRE Stroke Rehabilitation and  
Brain Recovery  
Training the next generation of researchers

# Consumer Research Forum – Oct 26<sup>th</sup>, 2017



35 stroke survivors and carers, 30 researchers and clinicians –  
working together to advance the stroke research agenda



**Collaborate with consumers**



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Idea: Engage eminent stroke research minds to establish new standards

Activity: Stroke Recovery Roundtable



Philadelphia, USA 2016



Guidelines

International  
Journal of Stroke 

## Moving rehabilitation research forward: Developing consensus statements for rehabilitation and recovery research

International Journal of Stroke  
010) 1-5  
© 2016 World Stroke Organization  
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sagepub.co.uk/journalsPermissions.nav  
DOI: 10.1177/1747493016642851  
wso.sagepub.com

 SAGE

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Tammy Hoffmann<sup>8</sup>, Gert Kwakkel<sup>9</sup>, Sean I Savitz<sup>10</sup>,  
Gustavo Saposnik<sup>11,12</sup>, Marion Walker<sup>13</sup> and Nick Ward<sup>14,15</sup>

# 1 st Stroke Recovery & Rehabilitation Roundtable (SRRR)

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Consensus on how to develop, monitor, evaluate & report stroke recovery interventions

- Translation of basic science
- Biomarkers of stroke recovery
- Intervention monitoring & devel
- Measurement in clinical trials
- Agreed definitions and timelines

All papers now *free* online: <http://bit.ly/2tfXbh0> & see NNR for reprints





# 2<sup>nd</sup> Stroke Recovery & Rehabilitation Roundtable (SRRR) – Montreal 2018

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Next transformational steps in the collaboration

- What study/studies will change the recovery landscape?
- Cognition consensus
- Translating evidence to practice, how and what?
- Measuring 'recovery' not just function



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The screenshot shows the top portion of the Wispp website. At the top left is the 'wispp' logo in white on a blue background. To its right is a navigation menu with links for HOME, ABOUT, WHAT WE DO, PROFILES, PARTNERS, and CONTACT. Below the navigation is a blue banner with a sun and grass background, containing the text: 'Women in Science Parkville Precinct - Wispp- brings together five of Australia's largest medical research institutes in a collective impact initiative to boost numbers of women in science leadership.' Below the banner is a white section with a blue button that says 'SIGN UP FOR UPDATES'. Underneath the button is the text: 'We believe that diversity is essential for world class scientific discovery.' At the bottom of this section are five logos for partner institutions: Doherty Institute, THE FLOREY, Peter Mac, Murdoch Childrens Research Institute, and Walter+Eliza Hall. A black footer bar at the bottom contains the website address 'www.wispp.org.au' in white text.

**wispp**

HOME ABOUT WHAT WE DO PROFILES PARTNERS CONTACT

Women in Science Parkville Precinct - Wispp- brings together five of Australia's largest medical research institutes in a collective impact initiative to boost numbers of women in science leadership.

SIGN UP FOR UPDATES

We believe that diversity is essential for world class scientific discovery.

Doherty Institute THE FLOREY Peter Mac Murdoch Childrens Research Institute Walter+Eliza Hall

[www.wispp.org.au](http://www.wispp.org.au)

**Idea:** Use collective impact to advance women in science

**Activity:** 5 leading research institutes in Melbourne working together to make change



Influencing the  
agenda, equity &  
representation

**WFNR**

World Federation for NeuroRehabilitation

  
**World Stroke  
Organization**

  
Stroke Recovery and Rehabilitation  
First Roundtable

  
**AVERT**  
A Very Early Rehabilitation Trial

**wispp**  
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Stroke Rehabilitation and Brain Recovery

# Challenge the status quo

NEJM  
Ideas Lab  
World  
Economic  
Forum, China



<http://bit.ly/2docfTM>





Influence

## Get comfortable leading change

Understand the tools at your disposal – use them  
Find a good mentor



# Some final thoughts

Breaking down silos

- Not all collaborations work or last – that's OK
- The 'big picture', not personal gain inspires others & gets traction
- Set the rules of engagement early, write them down & stick to them
- Get a good mentor(s)....

**Forbes**

**QUOTE OF  
THE DAY**

“If your actions inspire others to dream more, learn more, do more and become more, you are a leader.”

*- John Quincy Adams*

# Acknowledgements

 @CREstroke

 @AVERTtrial

## My team



## Funders





PHYSIOTHERAPISTS FOR  
PHYSICAL ACTIVITY

 @PHYSIO4PA

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