



2016-17
ANNUAL REPORT

TRANSFORMING
EMERGENCY MEDICINE



For the year ending 30 June 2017

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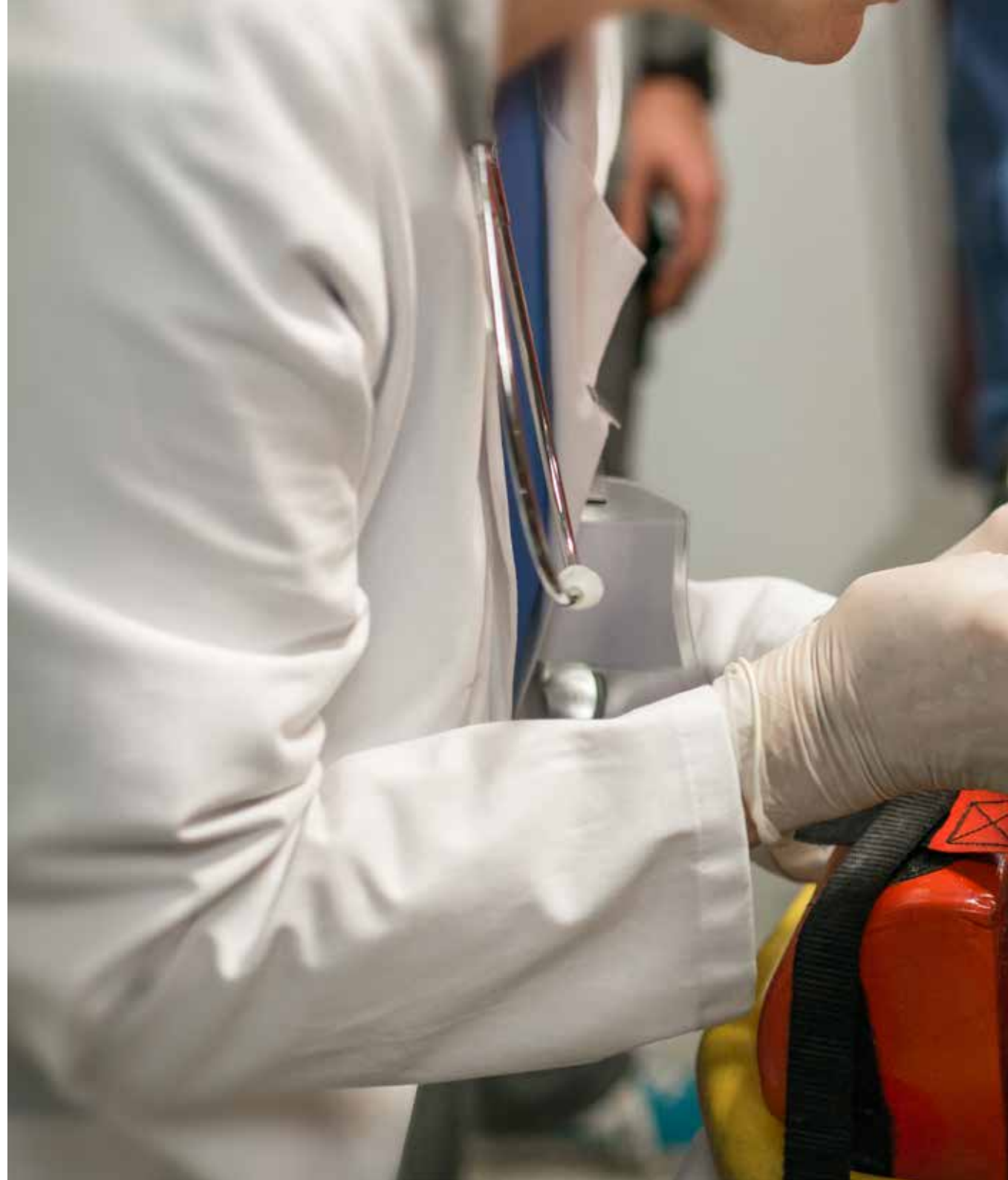
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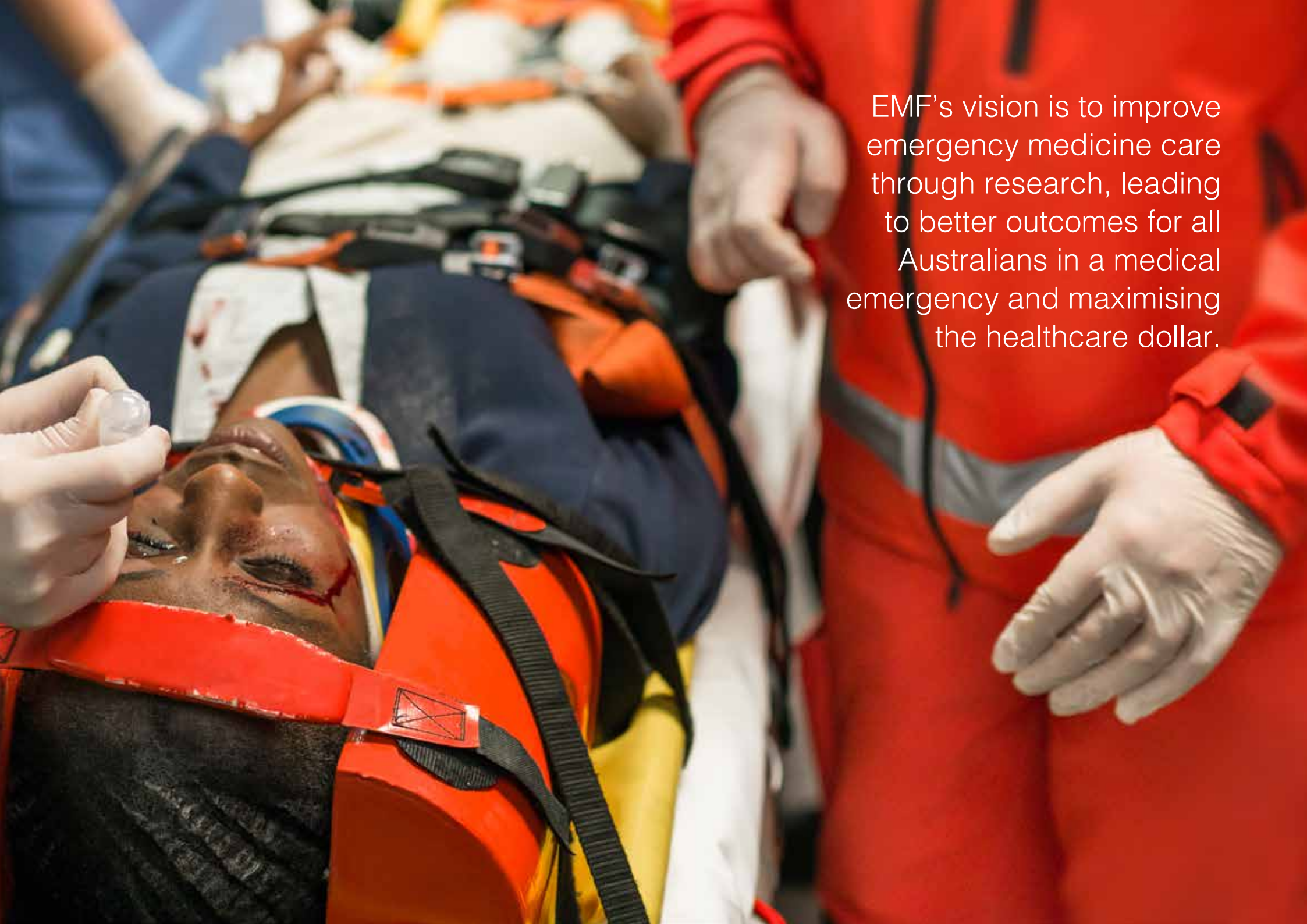
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EMF's vision is to improve emergency medicine care through research, leading to better outcomes for all Australians in a medical emergency and maximising the healthcare dollar.

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2016-17

Operational Highlights

QUEENSLAND RESEARCH PROGRAM

49
APPLICATIONS


100 researchers

 **20** GRANTS AWARDED

 **\$1,266,626**
IN GRANTS

 **\$4,801,375**
requested

11

Applications from
QUEENSLAND
HHSs

RESEARCH PROGRAM OUTCOMES

58
active
projects

 **71** CONFERENCE AND INVITED
SPEAKER PRESENTATIONS


9694
patients
involved

2 NEW CLINICAL
GUIDELINES

 **77**
publications and
book chapters



29
ACTIVE CLINICAL
TRIALS AND STUDIES

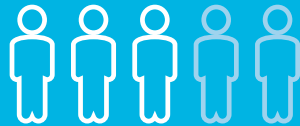
166
actively collaborating
institutions, centres
and organisations

\$18.9 million/year
economic benefits to the
Queensland healthcare system



RESEARCH SUPPORT NETWORK

3
HUBS



5 Research Development Managers (3.0 FTE)



Worked with clinicians in
38 & 18
Queensland Interstate hospitals

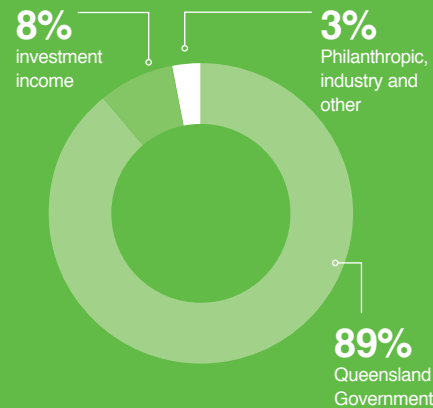
Liaised with **258** potential research collaborators, including 7 PHNs



RSN Manager (0.7 FTE)

\$ RSN FUNDING EXTENDED UNTIL 2018-19

SOURCES OF INCOME



COMMUNICATIONS



15
MEDIA RELEASES



30,294
website page views

254,657
social media post views



FINANCE

47%
REDUCTION IN CORPORATE, MARKETING & PUBLIC RELATIONS EXPENDITURE

EMF STAFF (FTE)



4.65
GRANT MANAGEMENT AND CORPORATE



3.7 RSN
(directly and in indirectly employed)

2016-2017

Research Highlights

IMPACT protocol for chest pain:

A new chest pain protocol is being rolled out to Queensland public emergency departments. The protocol allows clinicians to rapidly assess more patients as low and intermediate risk, dramatically reducing length of stay and testing (page 34).



Point-of-care-testing (POCT) evaluation in the Northern Territory:

EMF funded one of the first projects in the world to quantitatively evaluate the benefits of POCT in remote health settings. They found the devices are saving the Territory Government millions in avoided medical evacuations (page 31).



Holding IV drips in place with medical glue:

Caboolture Hospital Emergency Department researchers have found a new way to make intravenous (IV) lines safer, less painful and potentially more cost effective (page 47).



New option for procedural sedatives:

In the world's largest trial of the procedural sedatives propofol and ketofol, emergency medicine researchers showed ketofol is a viable alternative (page 35).



Potential new medication for kidney stones:

In a multisite clinical trial, Queensland researchers found a prostate drug could be used successfully to treat patients with large kidney stones, potentially avoiding the need for surgery (page 29).





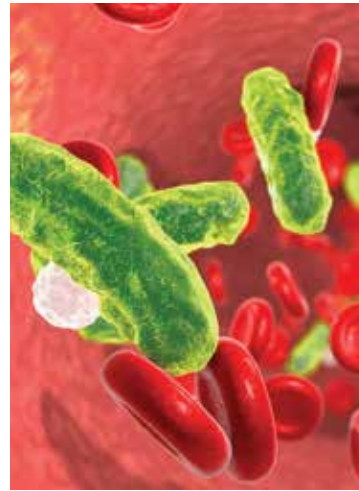
Improving head injury diagnosis in children to minimise CT scans:

Lady Cilento Children's Hospital clinicians took part in a large Australasian clinical trial, which could see hospitals using fewer CT scans to diagnose children with head injuries (page 29).



Hospital in Nursing Home (HiNH) program is effective:

In an evaluation, researchers found the HiNH program run by Metro North HHS is reducing emergency department presentations for aged care residents. The program is returning \$17 for every \$1 invested (page 28).



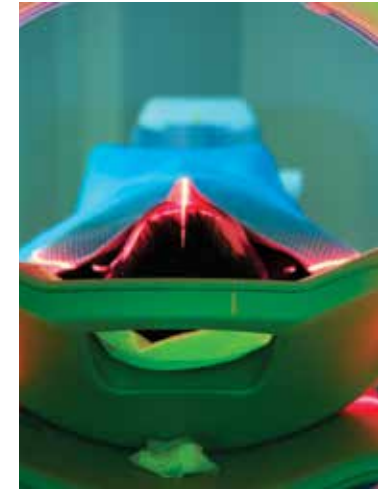
REstricted Fluid REsuscitation in Sepsis-associated Hypotension (REFRESH) pilot trial:

Patient recruitment began in the first clinical trial of its kind in an industrialised country, with the research team comparing outcomes from using conventional fluid treatment for septic shock to a restricted use of fluids (page 100).



Social workers in the emergency department evaluation:

Emergency medicine researchers are studying an Australian first 24/7 social work service at the Royal Brisbane and Women's Hospital Emergency and Trauma Centre, which they have found is helping domestic violence victims (page 50).



Understanding headache presentations in Queensland emergency departments:

In a unique project, clinicians have provided an insight into the causes, diagnostic approaches and cost of headache presentations at 34 Queensland emergency departments (page 29).

CHAPTER 1

About EMF

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OVERVIEW

EMF is an Australian not-for-profit organisation, dedicated to emergency medicine research.

Our purpose is to support high-quality research directed at improving the care of patients in a medical emergency and to develop emergency medicine research capacity nationally. Long-term, every Australian will benefit from our research programs.

We fund innovative, evidence-based research with the potential to improve clinical practice in the short-term as well as deliver economic benefits to the healthcare system. In addition, we also help to raise the profile of emergency medicine research and foster the transfer of research outcomes into real and practical benefits for medical emergencies.

With \$2 million dedicated funding per year from Queensland Health, along with philanthropic and industry donations, this small organisation has invested more than \$13 million in emergency medicine research since 2008. EMF has also committed a further \$2 million to developing and running a Research Support Network in Queensland.

OUR HISTORY

Queensland emergency medicine specialists successfully lobbied the Queensland Government for funding to establish the Queensland Emergency Medicine Research Foundation (QEMRF) in 2007.

QEMRF was designed to build emergency medicine research capacity and capability in Queensland; and to enable emergency medicine specialists based in Queensland public hospitals to instigate and lead clinically-driven research projects.

Building on the success of QEMRF, the organisation launched a national body in 2014—the Emergency Medicine Foundation (EMF).

The two entities were merged in 2016 to allow for the development of multiple, dedicated emergency medicine research programs Australia-wide. At present, these include a national Rural and Remote Program and the Queensland Research Program (formerly QEMRF).

Thanks to ongoing support from the Queensland Government for EMF, the State's emergency medicine clinicians have access to the only dedicated emergency medicine research program in Australia.

EMF PROGRAMS

QUEENSLAND RESEARCH PROGRAM

This Program is fully funded by the Queensland Government Department of Health. Between 2008-09 and 2016-17, Queensland Health has invested \$18 million in funding the Program.

The first grant round in the Queensland Research Program was offered in 2008-09. In the nine years since, EMF has awarded 131 grants totalling \$12.95 million—having received more than double this amount in funding requests and applications.

See page 22 for more details on this Program.

RURAL AND REMOTE RESEARCH PROGRAM

Delivering appropriate emergency healthcare to Australia's rural and remote population is challenging, which is why EMF launched a dedicated Rural and Remote Research Program.

EMF launched the Program in 2014, with philanthropic and corporate funding.

The Program has attracted 160 expressions of interest totalling \$11 million. Of these, 22 projects were selected as fundable. To date, EMF has awarded three grants worth \$195,000.

Our team is continuing to explore targeted sponsorship and government funding opportunities where possible, with the goal of continuing and growing this Program.

See page 30 for more details on this Program.

RESEARCH SUPPORT NETWORK (RSN)

The RSN is a strategic initiative envisaged by the EMF Board to support and foster research by emergency medicine professionals in the Queensland Health workforce.

The RSN is designed to distribute a wealth of research skills, knowledge and collaborative networks to researchers and clinicians across all hospital sites in Queensland.

The RSN operates via a hub and spoke model, with each hub supported by a dedicated Research Development Manager.

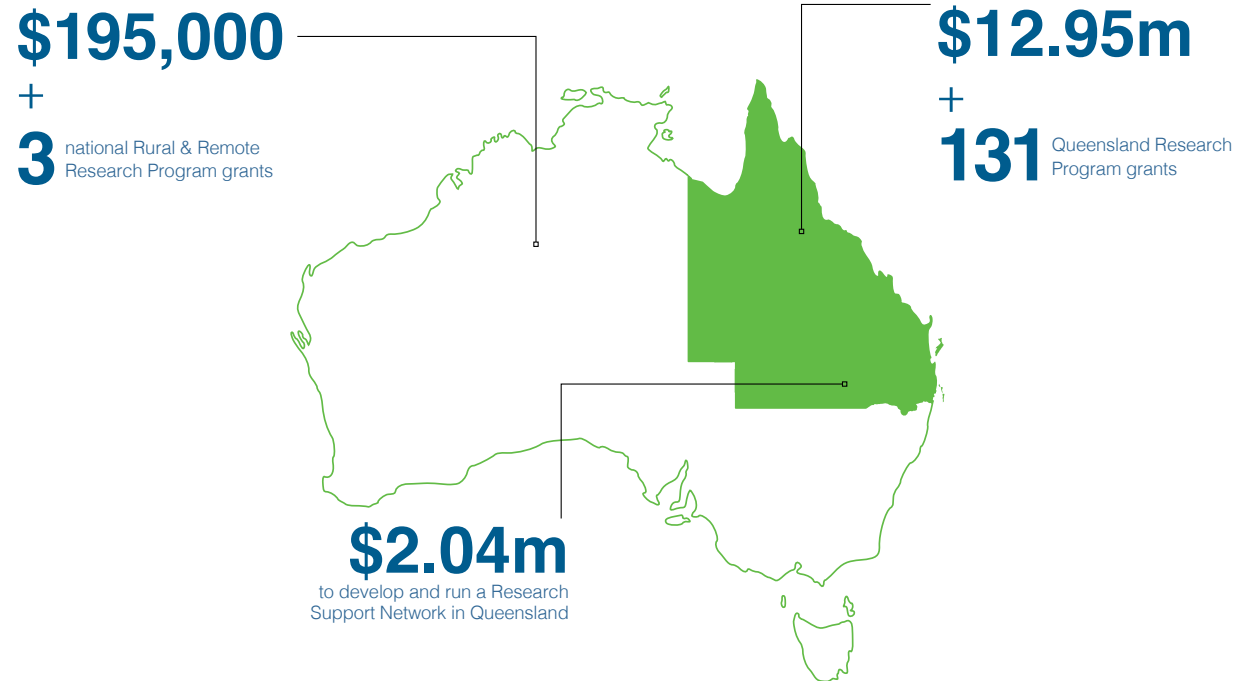
EMF developed the RSN program in 2014-15 and launched a pilot phase in late 2015, operating with an initial three hubs outside Brisbane.

The EMF Board has committed to funding the Network for three years, pending the outcomes of the first year pilot phase.

EMF is actively seeking funding from government and industry to both continue the RSN long-term within Queensland and extend its reach nationally.

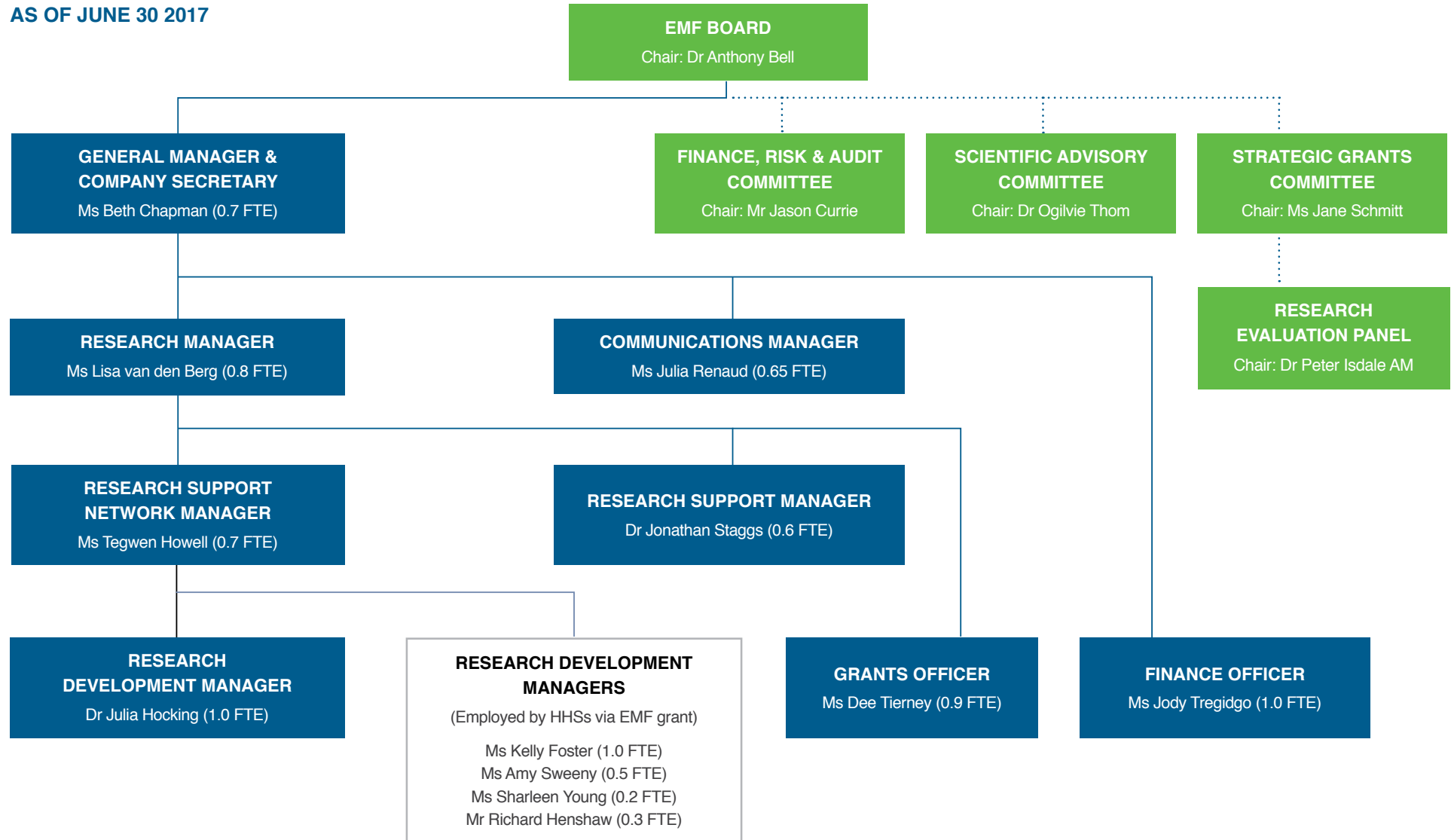
See page 36 for more details on this Program.

Research investment by EMF (2008/09-2016/17)



ORGANISATIONAL STRUCTURE

AS OF JUNE 30 2017



EMF BOARD OF DIRECTORS

ROLE OF THE EMF BOARD

EMF is a not-for-profit organisation governed by its Board of Directors.

The Board is responsible for setting the Foundation's strategic agenda and approving the budget. The Board also makes the final approval for all research grant recipients.

The Board is accountable to the members for the attainment of EMF's vision and purpose and for ensuring the ongoing sustainability and growth of the Foundation.

In general, the Board is responsible for, and has the authority to determine, all matters relating to the policies, practices, management and operations of EMF.

The Board is required to do everything that may be necessary to effectively carry out EMF's objectives. The Board also has the final responsibility for the successful operations of EMF.

Several governance committees inform the Board, including the Finance, Risk and Audit Committee and the Strategic Grants Committee.

More details about the Board are provided on page 58 and 90.

DR ANTHONY BELL EMF Chair

Medical Director, Emergency and Trauma Centre, Royal Brisbane and Women's Hospital

MBBS, FACEM, MBA, MPH, FRACMA



22 FEBRUARY 2017 – ONGOING

Dr Bell was appointed EMF Chair in May 2017. He is an emergency medicine specialist and Medical Director of the Emergency and Trauma Centre at the Royal Brisbane and Women's Hospital. He has previously held state-wide Clinical Chair positions. Dr Bell trained in medicine in Australia and is a Fellow of the Australasian College for Emergency Medicine as well as the Royal Australasian College of Medical Administrators. In addition, Dr Bell also holds an MBA and a Masters of Public Health both from the Queensland University of Technology as well as having studied 'Managing Healthcare Delivery' at the Harvard Business School. Dr Bell has successfully secured several research grants and is committed to fostering clinical research in emergency medicine. He has a keen interest in quality improvement, clinical redesign, health services research and policy development at a system level. He holds academic appointments with two universities: he is an Associate Professor at The University of Queensland and an Adjunct Associate Professor with the Queensland University of Technology. He maintains a strong interest in value based healthcare delivery, is passionate about implementation of the right change and is a strong advocate for the power that a positive culture can have as we work together as multidisciplinary teams to achieve excellence in healthcare delivery.

ASSOCIATE PROFESSOR ED OAKLEY

Paediatric Emergency Medicine Specialist, Director of Emergency Medicine, Royal Children's Hospital, Melbourne

MBBS, FACEM



11 NOVEMBER 2014 – ONGOING

Associate Professor Oakley is a paediatric emergency medicine specialist, Director of Emergency Medicine, Royal Children's Hospital, Melbourne and an honorary Research Fellow at the Murdoch Children's Research Institute. He undertook training in emergency medicine in Australia and has worked as a paediatric emergency medicine specialist since 1998. He is a member of the Paediatric Leadership Group of the Victorian Paediatric Clinical Network, the Clinical Trials Group of the Australasian College for Emergency Medicine and is a section editor of Emergency Medicine Australasia journal. Associate Professor Oakley is the chief investigator for the Paediatric Emergency Medicine Centre of Research Excellence and a chief investigator on several other National Health and Medical Research Council grants through the Paediatric Research in Emergency Departments International Collaborative (PREDICT). Associate Professor Oakley is a member of the EMF Scientific Advisory Committee.

DR JOHN WAKEFIELD PSM

(Queensland Health Board nominee)

Deputy Director-General – Clinical Excellence Division, Queensland Health

MBChB, MPH (research),
FRACGP, FACRRM, FRACMA



23 MARCH 2016 – ONGOING

Dr Wakefield is Deputy Director-General – Clinical Excellence Division, Queensland Health and an Adjunct Professor of Public Health at Queensland University of Technology. He has more than 20 years' experience in clinical and management roles in rural, regional and tertiary public sector health services in Queensland. After completing a Fellowship at the National Centre for Patient Safety of the VA Health System in the United States, Dr Wakefield returned to Queensland in 2004 and established the Queensland Health Patient Safety Centre, which he led until late 2012. He is actively involved in national efforts to improve patient safety in partnership with the Australian Commission for Safety and Quality in Healthcare. He chaired the National Open Disclosure Pilot Project and regularly teaches Open Disclosure and other patient safety curricula. His research interests include patient safety culture, safety performance measurement and open disclosure. In 2011, he was awarded a public service medal for services to patient safety as part of the national Australia Day Awards.

DR MICHAEL SINNOTT

Senior Staff Specialist,
Emergency Department,
Princess Alexandra Hospital

MBBS, FRACGP, FACEM



28 SEPTEMBER 2015 – ONGOING
ESTABLISHMENT (2007) – NOVEMBER 2013

Dr Sinnott is a Senior Staff Specialist at the Princess Alexandra Hospital (PAH) Emergency Department and an Associate Professor at The University of Queensland (UQ) School of Medicine. In addition, he is also the Director of the UQ-PAH Emergency Department Research Program. Previously Associate Professor Sinnott was the Director of Emergency Medicine Training and Chair of the General Clinical Training Committee. Throughout his career, he has been awarded \$1.8 million in research grants (including being a co-investigator on two ARC linkage grants); \$2 million in commercial grants and loans; produced more than 30 publications and delivered 40 presentations. He has been the driver behind two Australian Standards and successfully lobbied for one Australian Standard and Resolutions on Staff Safety by the Michigan House and Michigan Senate. He is the Managing Director of Qlicksmart Pty Ltd.

DR DAVID SPAIN

Deputy Director and Staff
Specialist, Emergency
Department,
Gold Coast University Hospital

MBBS, FRACGP, FACEM



15 OCTOBER 2015 – ONGOING
31 MAY 2007- 27 FEBRUARY 2012

Dr Spain is Deputy Director and Staff Specialist with eminent status at Gold Coast University Hospital Emergency Department. He is an Adjunct Fellow (Research) at the Menzies Health Institute Queensland, Clinical Senior Lecturer with Griffith University and an Associate Professor with Bond University. With vast experience in clinical governance, complaint resolution and medical negligence, he also provides emergency medicine opinion to numerous governments as well as private and judicial organisations. Dr Spain's previous appointments include Medical Director Allamanda 24Hr Emergency Care Centre at Allamanda Private Hospital Southport, Clinical Senior Lecturer with The University of Queensland and Chief Medical Officer Gold Coast Indy 300. He has vast committee participation experience; has published more than 30 articles in refereed journals; and has developed 10 research papers.

DR PETER ISDALE AM

Board Director
PhD, BA(Hons), MAICD



9 SEPTEMBER 2015 – ONGOING

Dr Isdale is the Managing Director of Intergyre Pty Ltd and the Chair of The Wetlands and Grasslands Foundation, Ecoreps Pty Ltd and ReefCSI.org. He has held directorships on boards of private, public and ASX-listed companies in Australia, Asia and the Pacific Rim for almost 40 years and he held an executive appointment with Transpacific Industries Group, an ASX150 corporation. Dr Isdale spent 15 years as a marine scientist at the Australian Institute of Marine Science (AIMS) before being appointed as the Institute's Business Director. He has been involved in the authorship on more than 50 scientific papers in the field of marine science. In addition, he was also the Chief Executive of technology translation companies for two major universities – The University of Queensland and the Queensland University of Technology – and is experienced in finding and bringing high quality research outcomes into practical, useful and enduring applications. His later career has included CEO and Board appointments in the fields of technology, innovation and conservation. He continues in advisory and mentoring roles to executives and board members of several organisations. Dr Isdale was made a Member in the General Division of the Order of Australia (AM) in 2006 for services to marine science through research and as a contributor to the development and commercialisation of biotechnology. Dr Isdale is also chair of the EMF Research Evaluation Panel.

MR JASON CURRIE

Program Director – Health Services, Vanguard Health
BSc, LLB, MIP, GCPA



5 APRIL 2016 – ONGOING
SEPTEMBER 2010 – MARCH 2014

Mr Currie has worked in the healthcare improvement and innovation space for more than a decade: delivering state-wide improvement programs, establishing support programs for medical research, providing policy advice to government departments and working as a Patent Examiner in IP Australia. He has a passion for challenging the status quo, for fostering innovation and reducing the time delay between research creation and practice change. Mr Currie is also Chair of the EMF Board's Finance, Risk and Audit Committee.

ASSOCIATE PROFESSOR SALLY MCCARTHY

Senior Specialist Emergency Physician, Prince of Wales Hospital
MBBS, FACEM, MBA



RETIRING DIRECTOR
12 NOVEMBER 2013 – 3 MAY 2017

Associate Professor McCarthy retired as the EMF Chair and as a member of the Board in February 2017, having served as Acting Chair, and then Chair, from 20 July 2015. Associate Professor McCarthy is the inaugural Clinical Director of the Emergency Care Institute of NSW, a senior specialist emergency physician at Prince of Wales Hospital in Sydney and Conjoint Associate Professor at the University of New South Wales. In 2015, she was invited by the Prime Minister to be part of the Prime Minister's Ice Taskforce, and in 2016 by the Chair of the Medicare Benefits Schedule Review Taskforce to Chair the Intensive Care and Emergency Medicine clinical committee. Associate Professor McCarthy is an experienced Director of emergency medicine departments across Australia, and has a significant track record in emergency care research, including as chief and associate investigator on several NHMRC grants. As a past president of the Board of the Australasian College for Emergency Medicine (ACEM) and a founding member of the Board of the International Federation for Emergency Medicine, she brought a wealth of experience and knowledge to EMF.

BOARD OF DIRECTORS' REPORT



This year, EMF yet again demonstrated its ability to drive emergency medicine research in Australia.

Significantly, in 2016-17, EMF-funded projects led to clinical improvements in Australian emergency departments, with the introduction of two new clinical guidelines.

A key highlight was the roll out of a new chest pain diagnostic protocol to Queensland emergency departments. This protocol is dramatically reducing the time needed to diagnose low and intermediate risk patients and has the potential to deliver more than \$12 million a year in healthcare benefits for Queensland public hospitals.

Other EMF-funded teams conducted projects that have the potential to lead to better diagnostics for head injuries, heart attacks and headaches; a new treatment for large kidney stones; better medical training for using cannulas; and evaluations which, respectively, demonstrated the very real value of point-of-care-testing in isolated communities as well as a program for keeping the elderly out of hospitals.

Each of these projects is likely to improve outcomes for patients and practitioners in an emergency not just in Australia, but internationally.

QUEENSLAND RESEARCH PROGRAM

This was our most competitive year for research grants, with EMF receiving a record 49 grant applications requesting \$4,801,375 in funding.

Following a rigorous review process, EMF awarded 20 grants totalling \$1,266,626 to research teams made up of 100 clinician-researchers and academics.

The EMF Board was particularly delighted to see an increase from first-time applicants as well as the number of applications from research teams based in regional and rural emergency departments. Of the grants EMF awarded, more than 70 per cent were to applicants based outside Brisbane, including Mt Isa, Townsville, Rockhampton and Toowoomba hospitals.

With the existing Queensland Health funding for this Program ending on 30 June 2017, EMF submitted a proposal to the Department for both a renewal and an expansion of the funding agreement. At the time of printing, a new contract had been signed (although this fell in the 2017-18 financial year). The new contract provides for \$6 million (excluding GST) in funding for the Queensland Research Program over the next three years.

EMF is continuing discussions with the Department for additional funding for its programs. Based on economic analyses, we believe that EMF is delivering a high rate of return on Queensland Health's investment. In the last year, EMF-funded projects delivered an estimated \$18.9 million in economic benefits to the Queensland healthcare system.

OPERATIONAL CHANGES

EMF has dramatically streamlined its operations. We now have a lean, but highly efficient workforce in place. By employing the majority of its staff part-time, EMF has been able to secure a very experienced team, whose skill set rivals that of much larger organisations.

The Foundation also cut expenditure by bringing in-house its public relations activities and business development.

Overall, these changes led to a 47 per cent reduction in corporate, marketing and public relations expenditure (as defined in the Financial Statements) compared to the consolidated costs from the organisation's activities in the

previous year. Long-term, these changes will place EMF in a stronger financial position. However, the lean workforce does present a minor risk due to the concentration of corporate knowledge across a small number of staff.

RESEARCH SUPPORT NETWORK (RSN)

EMF's RSN program completed a one-year pilot during the year, with the EMF Board committing to another two years of funding for the initial three hubs in the pilot. This pilot was very successful, leading to a surge in emergency medicine research grant applications. The research capacity and capability being built in emergency departments outside metropolitan Brisbane is significant. EMF is unable to commit to funding the program beyond 2018-19, but our team is continuing to investigate potential funding sources to extend the RSN throughout Queensland as well as interstate.

MY THANKS

Queensland Health's vision for the clinician-led emergency medicine research program has allowed clinicians to actively change the way we care for patients. On behalf of the Board, I thank Queensland Health for its commitment to funding EMF's Queensland Research Program and its support for expanding EMF nationally. Thank you also to our Board and Board committee and panel members – who generously volunteer their time – and the EMF staff for helping to make EMF a key player in emergency medicine research.

Dr Anthony Bell
Chair
Emergency Medicine Foundation

EMF EXECUTIVE

ROLE OF THE EMF EXECUTIVE

Under the guidance of the General Manager, the EMF executive manages the Foundation's operational activities in accordance with the direction of the Board.

BETH CHAPMAN

General Manager &
Company Secretary
BBus, CPA



Beth was appointed General Manager in July 2016 and is responsible for overseeing EMF's operations. Beth also continues to be responsible for overseeing all aspects of financial management, company secretarial and statutory reporting obligations for EMF. Beth brings extensive experience to her role from the private, public and not for profit sectors both in Australia and in the United Kingdom, with more than 20 years in senior positions.

LISA VAN DEN BERG

Research Manager
BSc MSc (Hons)



Lisa has several years experience in university research innovation and knowledge transfer in Australia and New Zealand. In this sector, Lisa worked closely with researchers to identify and develop ways to translate their ideas into practice, focusing on relationship building and the translation of multi-disciplinary projects. Prior to joining EMF, Lisa was a Commercial Manager at qutbluebox, the Queensland University of Technology innovation and knowledge transfer company. She is committed to fostering research innovation and enhancing the impact of research outcomes through developing strategies, collaborations and partnerships.

TEGWEN HOWELL

Research Support Network
Manager

BEcon, MEcSt



Tegwen is responsible for overseeing the EMF Research Support Network in Queensland. Tegwen brings to her role more than 20 years' health research experience in Australia and Canada. She is an experienced health economist who has worked across the health spectrum, including public health, health economics, health policy, health technology assessment and clinical research. Tegwen has managed several large multisite research projects in emergency medicine and cardiology, including the role of Senior Research Officer and Project Coordinator with the Headache Investigation Snapshot. In addition, Tegwen has also managed multi-disciplinary teams evaluating clinical, economic, ethical and social implications of emerging health research.

JONATHAN STAGGS

Research Support Manager

BA Pol Sci (Hons), MBA, PhD



Jonathan is responsible for supporting EMF's grant administration and advisory committees; EMF's key initiatives and events; and collaborative agreements between EMF and other organisations. Prior to joining EMF in 2015, Jonathan was a post-doctoral researcher at the University of Queensland Business School with expertise in emergency medicine, coal-seam gas, and Australian research policy. Jonathan currently maintains lecturing appointments at The University of Queensland and Queensland University of Technology.

JULIA RENAUD

Communications Manager








BSc Agr (Hons I), PGradDip J



Julia has more than 20 years' experience in communications and research. Prior to joining EMF, Julia ran a corporate communications consultancy—collaborating with industry, universities, government and start-ups. Julia began her career in research with CSIRO and QIMR Berghofer, before moving into communications with the Leukaemia Foundation. Prior to establishing her consultancy, Julia was the Corporate Development Manager for UniQuest, The University of Queensland's technology transfer company.

2015-2020 Strategy

In 2015-16, EMF released an interim five-year strategy. This strategy includes several clear objectives such as establishing both national and additional state-based emergency medicine research programs. The EMF Board will review this strategy and its operational objectives in 2017-18.

OBJECTIVE	PERFORMANCE IN 2016-17
 Establish a national research program	<ul style="list-style-type: none">• EMF continued to lobby the Commonwealth Government for funding as well as investigating possible funding avenues through the Medical Research Future Fund (MRFF) (page 53).
 Identify opportunities for state-based research programs	<ul style="list-style-type: none">• In liaison with the Queensland Health Director General, EMF approached other Australian health departments to gauge their interest in establishing state-based emergency medicine research programs (page 53).
 Expand the Research Support Network	<ul style="list-style-type: none">• In November 2016, the EMF Board approved a further two years of funding for the RSN.• A proposal was sent to Queensland Health to fund the RSN beyond 2018-19, for which discussions are ongoing.• EMF had several discussions with other states to expand the program beyond Queensland (page 41).
 Targeted corporate development	<ul style="list-style-type: none">• EMF successfully concentrated its efforts on sourcing sponsorship for the EMF Research Symposium (pages 46 & 53).
 Grow the Queensland Research Program	<ul style="list-style-type: none">• A funding proposal was submitted to Queensland Health in February 2017 to renew its funding of the Program. EMF included a request to expand the funding to enable grant access for a wider range of emergency medicine professionals (pages 53 & 63).• Through the RSN, EMF was able to foster greater interest in the Program as reflected by the record 49 grant applications during the year (page 39).
 Raise the profile of EMF	<ul style="list-style-type: none">• EMF was particularly active in distributing media releases and posting to its social media channels. This resulted in more than 30,000 website page visits and 254,000 views of social media posts (pages 47-51).
 Knowledge mobilisation	<ul style="list-style-type: none">• EMF-funded research projects led to two new clinical guidelines being released for emergency departments in 2016-17.• Media promotion of research outcomes also led to several projects receiving international coverage. In particular, this resulted in requests from Europe and North America for copies of an instruction card for collecting urine samples (page 32).

THE YEAR AHEAD



In October 2017, the EMF Board will hold a strategy planning session, which will revise the interim 2015-2020 strategy released in 2015-16. This

session will play an important role in consolidating the future direction of EMF, the expansion of its key programs and the development of any new programs or grant schemes.

EMF's revised strategic plan will take into account our research grant and research support programs, our finances and our people and culture. The Board will also review EMF's mission and vision statements and potentially develop organisational values.

Feeding into the strategy will be input from national and international leaders in emergency medicine research, who attended an invite-only think-tank workshop in August 2017. EMF held the workshop to take advantage of the numerous high-profile delegates and speakers attending the EMF Research Symposium.

EXPANDING EMF'S RESEARCH GRANT AND RESEARCH SUPPORT PROGRAMS

It is likely that the EMF Board will continue its commitment to expanding EMF's research grant programs and Research Support Network. This expansion along with the development of any new programs will require EMF to source new and additional funding.

In the short-term, EMF will look to utilise its existing team to explore funding opportunities. However, in the long-term the Foundation will need to employ dedicated personnel to pursue these opportunities as well as support any new or expanded programs.

EMF RESEARCH SYMPOSIUM

In August 2017, EMF marked its 10th anniversary with a two-day Research Symposium. This important milestone event fell in the 2017-18 financial year and will feature in next year's Annual Report.

It is important to note that the event organisation occupied a significant portion of EMF's limited resources in 2016-17. The EMF team was heavily involved in planning and organising the event as well as engaging with stakeholders and potential sponsors.

The Symposium provided EMF with an important platform for engaging with industry and universities in 2017-18. Our aim is to leverage these newly formed relations to generate long-term partnerships in emergency medicine research.

MY THANKS

This was my first year in the role of General Manager and I would like to acknowledge the unwavering support and energy of the EMF team.

I am also grateful to the EMF Board, in particular our current Chair, Dr Anthony Bell, and the out-going Chair, Associate Professor Sally McCarthy, for their leadership and expertise.

As an organisation, EMF relies heavily on the voluntary services of numerous professionals from emergency medicine along with business and government—thank you all for your valuable contribution to emergency medicine research and EMF.

Beth Chapman
General Manager
Emergency Medicine Foundation

A photograph of medical professionals in a hospital setting. In the foreground, a woman in blue scrubs is smiling and looking at a tablet. To her left, two men in white lab coats are also looking at the tablet. In the background, another woman in teal scrubs is visible, and a man in a white lab coat is smiling. The scene is brightly lit and appears to be a collaborative work environment.

CHAPTER 2

EMF research programs

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At the EMF Grant Awards Breakfast: research team members who received 2016-17 EMF grants, Prof John Fraser, Dr Don Campbell, Dr Shane George, guest of honour Leanne Linard MP, Prof Gerben Keijzers, EMF Chair at the time A/Prof Sally McCarthy, Dr Shane Martin, Dr Rina Savage, Dr Gary Mitchell and Dr Erik Wood

QUEENSLAND RESEARCH PROGRAM

2016-17 HIGHLIGHTS

49 grant applications

\$4.8 million requested

244% increase in new applicants

20 grants awarded

\$1.2 million in grants

100 researchers

10 new clinical trials recruiting
4590 patients

\$3.2 million additional funding
linked to new grants

14 projects completed

143 publications and presentations

160+ active collaborating organisations

OVERVIEW

Annually, EMF runs two grant rounds for the Queensland Research Program. These rounds are open to individuals and research teams led by Queensland Health-employed emergency medicine specialists.

All grant applications are processed through a rigorous and transparent selection process. This process prioritises research projects based on their scientific merit and their potential to benefit emergency medicine.

The highly competitive research Program has led to significant clinical and economic outcomes in a relatively short period. Based on final reports to EMF, four projects¹ funded through this program are returning annual economic benefits worth \$18.9 million to the Queensland healthcare system. Deloitte Access Economics estimated that a further \$97 million in health economic benefits could be potentially realised due to reduced patient deaths from one project.²

GRANTS AWARDED IN 2016-17

EMF ran two grant rounds in 2016-17. A total of 49 applications were received for both rounds, requesting \$4,801,375 in funding.

After the review of the applications by EMF's independent panel of peer reviewers and the EMF Strategic Grants Committee, the EMF Board awarded 20 new grants totalling \$1,266,626. Grants were awarded to 40 per cent of applicants, with EMF meeting 26 per cent of requested funding.

The successful grant recipients are listed in Table A1.1 in Appendix 1. Further information about these grants is also available on our website.

TRENDS

Between 2008-09 and 2016-17, EMF awarded 131 Queensland Research Program grants totalling \$12.9 million (see Table A1.2).

Through its Research Program and support for the next generation of clinician researchers, EMF is directly contributing to the growth and development of Queensland's emergency research community.

This growth directly correlates to the rise over the past five years in grant applications for the EMF Queensland Research Program (see Figures 2.1 and 2.2).

In 2016-17, EMF received the largest number of grant applications since the Program was launched. Compared with 2015-16, there was a 41 per cent increase in research applications and a 60 per cent increase in funding requested.

In addition, there also has been a continued (and encouraging) rise in first-time applications from clinicians and hospitals throughout the State.

¹ Patient Admission Prediction Tool (PAPT); ADAPT Protocol (chest pain); Nasal high-flow (bronchiolitis in infants); change in treatment protocol for intoxicated patients (Gold Coast only).

² PAPT

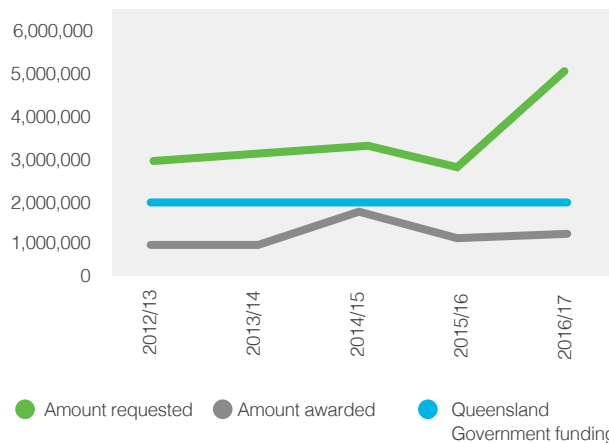
GROWTH IN NEW INVESTIGATORS

In recent years, EMF has experienced a steady increase in first-time applications from principal investigators. However, 2016-17 was the first year EMF received more applications from new principal investigators than previously funded applicants. There was a 244 per cent increase in new applicants from 2015-16 (refer to Figure 2.3 and Appendix 1).

The increase in new applicants was, in part, a continuation of the historical trend and a reflection of the continued growth in research undertaken by Queensland Health emergency medicine clinicians. However, EMF believes the spike was largely due to the impact of its new Research Support Network (RSN)—see page 39.

This Network is providing clinicians with the necessary support, skills and collaborators to undertake research.

Figure 2.1: Grant funding requested versus awarded (2012/13-2016/17)



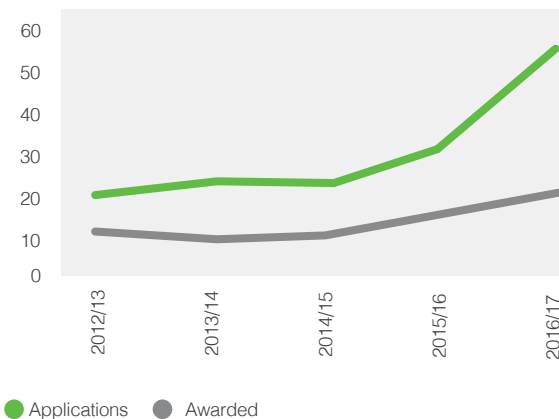
GRANT DISTRIBUTION

EMF has seen a distinct change in the allocation of its grants by Hospital Health Services (HHS).

Historically, EMF has always had a spread of grants throughout Queensland. However, until recently, the majority of grants were typically awarded to investigators based in Brisbane hospitals (refer to Appendix 1).

In 2016-17, for the first time, the bulk of the funding was awarded outside of Brisbane, with half (54%) of the funding awarded to Gold Coast Health, followed by Townsville HHS (14.8%)—see Figure 2.4.

Figure 2.2: Grant applications versus grants awarded (2012/13-2016/17)



Importantly, the Darling Downs HHS, Central Queensland HHS and North West HHS were awarded their first EMF grants. It was also the first time EMF had received and funded grants for Logan Hospital in Metro South HHS.

This change in grant distribution can be attributed to a Queensland-wide growth in emergency medicine research capability and capacity, particularly following the introduction of EMF's RSN (see page 39).

For further data on EMF grant distribution by HHS, refer to Appendix 1.

Figure 2.3: Grant applications from previously funded applicants versus new principal investigators (2012/13-2016/17)

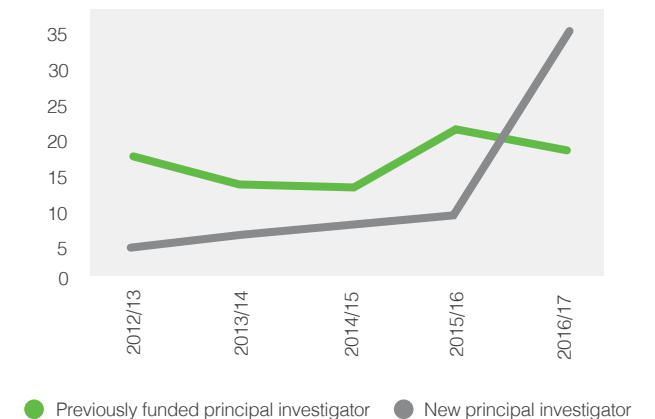
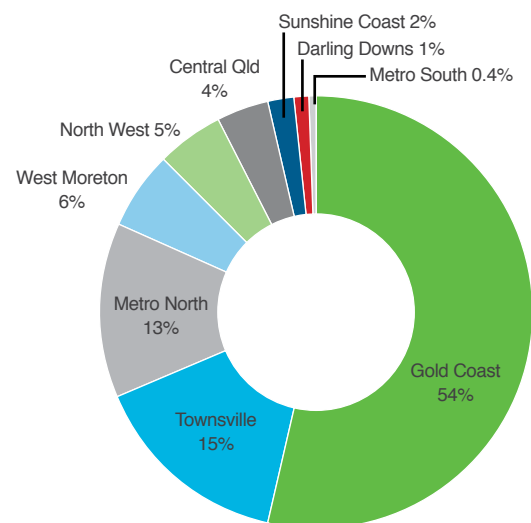
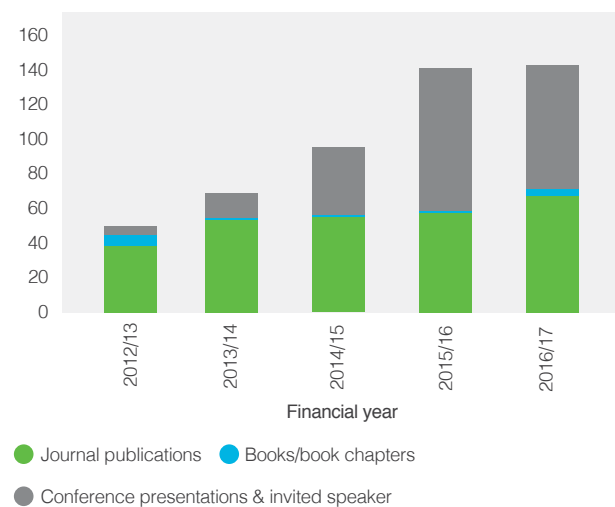


Figure 2.4: Allocation of EMF funding by HHS in 2016-17*



* This graph only includes successful HHS

Figure 2.5: Research publications (2012/13-2016/17)



PUBLICATIONS

EMF records the annual number of journal publications, books or book chapters and presentations at academic events, such as conferences, which result from EMF-funded research projects. This metric provides a well-recognised measure of research productivity.

This metric continues to increase annually, as shown in Figure 2.5.

In 2016-17, there was a three per cent overall increase from the previous year (139), but a large 186 per cent increase over the last five years (from 50 to 143).

Importantly, during the year a number of articles were published in high-impact journals including *The Lancet*, *Journal of the American Medical Association (JAMA)* and *Clinical Chemistry*.

The continued rise in peer-reviewed reporting of EMF projects reflects the quality of research undertaken through the Foundation's program as well as the continued growth in emergency medicine research capability.

During the past five years, there were 2430 citations of the journal publications or on average, 11.5 citations per journal article.

Please refer to Appendix 2 for a list of journal publications in 2016-17.

Please note: The publication figures vary from those reported in the 2015-16 Annual Report. EMF gathers data from final reports and a substantial number of additional historical publications and presentations were reported in the past year.

IN-KIND, LEVERAGED AND LINKED FUNDING

In many cases, EMF grants are the catalyst for generating further research support and funding. Where possible, EMF records additional project funding by the year the EMF grant was awarded, as shown in Figure 2.6.

At the end of the financial year, EMF grant recipients since 2008-09 had cumulatively generated \$45 million in leveraged, linked, follow-on or in-kind funding.

In particular, the amount of follow-on funding awarded for the continuation of projects has become significant and now exceeds \$25 million.

The EMF grants awarded in 2016-17 had \$3,264,988 in additional, leveraged or in-kind funding associated with them. A further two projects received grants allowing Queensland sites to join existing clinical trials, both of which had linked funding (NHMRC grants) totalling \$2,085,459.

In 2016-17, researchers at the Lady Cilento Children's Hospital received more than \$500,000 to expand their EMF-funded pilot trial into a multisite national trial (page 33). While a research team at the Royal Brisbane and Women's Hospital was awarded an \$800,000 Queensland Health grant to roll out a new chest pain diagnostic (page 34), which was developed with funding from EMF.

In addition, researchers previously funded by EMF also received two NHMRC grants totalling \$1.235 million in 2016-17 to continue their emergency medicine research.

Please refer to Appendix 3 for further funding data.

CLINICAL TRIALS

EMF funded 10 projects in 2016-17, which involved clinical trials. These trials will recruit up to 4560 patients in emergency care settings. A further two projects will trial new training or education programs for emergency department professionals, with potential to improve patient outcomes and healthcare efficiencies.

Clinical trials included repurposing a steroid drug for treating Bell's palsy in children; testing an alternative sedative for mentally ill patients in aeromedical retrievals; and looking at the effectiveness of a commonly used sedative for treating headaches.

In the past five years, 49 EMF-funded projects have recruited – or are in the process of recruiting – 27,077 patients for clinical trials or studies (see Figure 2.7). In an additional project, the team is analysing 25,000 patient records.

For further data on clinical trials funded by EMF, see Appendix 3.

Additional funding defined

- Leveraged: grants awarded to research groups as a direct consequence of receiving an EMF grant
- In-kind: goods or time donated to the research project
- Linked: funding awarded to projects prior to or independently of the EMF grant
- Follow-on: grants received following the completion of the EMF-funded research

COLLABORATIONS

The multiple collaborations facilitated through its Queensland Research Program are an important element of EMF's aim of developing emergency medicine research capacity across the State.

Collaborations with hospitals, universities, research institutes and other service providers improve the scientific quality and clinical relevance of research.

By fostering emergency medicine research in a concerted and collaborative manner, EMF aids the translatability of research outcomes to other emergency departments around the State, nationally, and potentially internationally.

In 2016-17, EMF-funded Queensland Program researchers actively collaborated with more than 160 Australian and overseas hospitals, universities, research institutions, government departments and organisations. Many of these organisations collaborated on more than one EMF-funded project, providing further evidence of EMF's strategy of fostering collaboration to improve impact.

To help build interagency relations and research collaboration opportunities, in 2016-17, EMF became an Associate Member of the Queensland Alliance for Mental Health (QAMH) – the main body representing the mental health sector in Queensland; and an Associate Member of Leading Age Services Australia (LASA), which is the national peak body representing and supporting providers of age services across residential care, home care and retirement living.

A list of all active EMF research collaborators is listed in Appendix 4.

Figure 2.6: Additional funding of EMF Queensland Research Program projects (2008/09-2016/17)

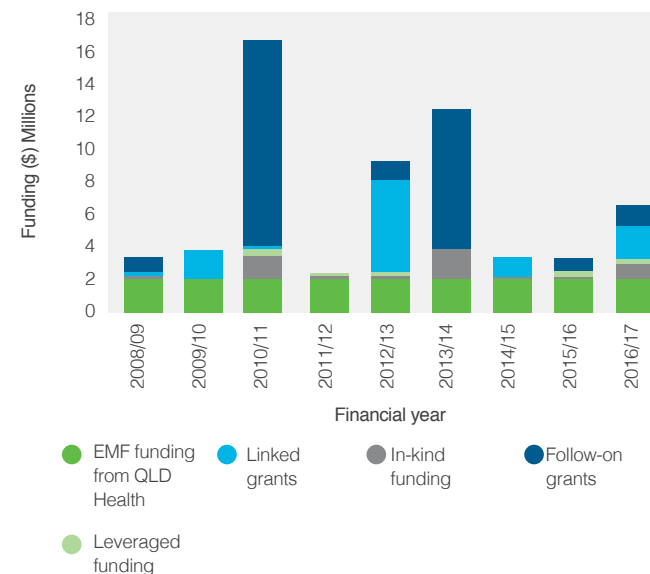
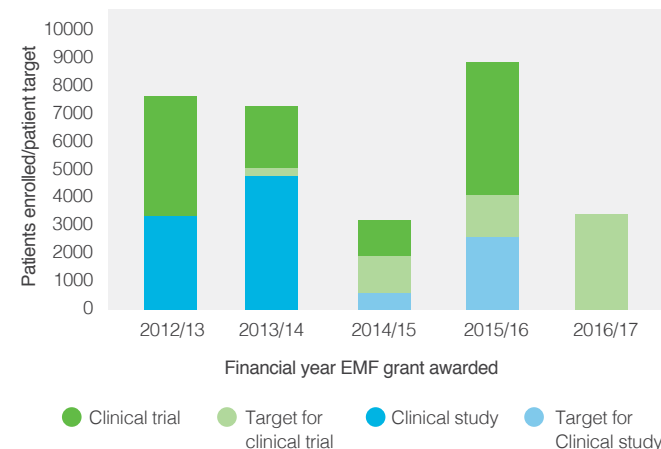


Figure 2.7: Patient recruitment for EMF-funded clinical trials and studies (2012/13-2016/17)



NEW GRANT:

EMERGENCY DOCTORS TRIALLING TREATMENT FOR CHILDREN WITH SEIZURES

Each year, more than 1000 children present at an Australian hospital with prolonged seizures.

In a small percentage of cases, the children require medication to stop them seizing. This condition, known as convulsive status epilepticus (CSE) can cause death or permanent brain damage.

EMF is funding three Queensland Emergency Departments to take part in a large Australasian clinical trial, run through the PREDICT network.

The trial aims to improve the care of children suffering from CSE, with clinicians comparing two second-line treatments – a newer anticonvulsant called levetiracetam (also known as Keppra) and an older drug, phenytoin – for treating children who don't respond to standard treatment.

The Townsville Hospital Emergency Department Director of Research, Associate Professor Jeremy Furyk said the trial would provide controlled evidence of levetiracetam in treating convulsive status epilepticus in children.

“We believe the results will have a profound impact on treating the condition world-wide,” said A/Prof Furyk.

EMF has also awarded Associate Professor Furyk a further grant to pilot a CSE Registry in Australia to help gain a better understanding of the incidence and cause of the condition.



FINAL REPORTS

EMF requires its Queensland Research Program grant recipients to report on the outputs and potential translational outcomes of their research upon their project's completion.

These outputs and outcomes include the dissemination of research, capacity building, the development of new diagnostic tools and any changes to policy and practice.

In 2016-17, EMF received final reports for 14 projects. Importantly, several of these projects had been implemented in clinical practice or were expected to do so within the short term.

These projects included the development and introduction of a new clinical diagnostic for chest pain (page 34); a major study of head injuries in children, which was published in the prestigious medical journal *The Lancet* (page 26); clinical trials for a potential new drug for treating large kidney stones (page 29), the use of medical glue to hold IV lines in place (page 49) and an alternative procedural sedative (see page 35).

A new education program to reduce the overuse of cannulas in the emergency department also looks set to reduce costs and improve patient outcomes.

An overview of all the final reports is listed in Appendix 5.

THE YEAR AHEAD

To meet the growing demand for emergency medicine research grants in Queensland, EMF will continue to pursue opportunities to expand its Queensland Research Program.

In addition to continuing to lobby the Queensland Government for additional funding for this program, EMF will also explore targeted research sponsorship opportunities and seek to leverage our funding by co-funding grants with related foundations and philanthropists.

EMF is working closely with the Queensland Health Director General to pursue funding to establish similar frontline research programs in other Australian States and Territories.



NEW GRANT:

NEW CLOTTING DRUG COULD IMPROVE TRAUMA PATIENT SURVIVAL RATES

Gold Coast University Hospital (GCUH) is leading a clinical trial aiming to improve outcomes for severely injured trauma patients with critical bleeding.

Patient recruitment for the Fibrinogen Early In Severe Trauma study (FEISTY) trial began in December 2016.

In total, 100 patients will participate in the research at the four major trauma centres in Queensland: GCUH, Princess Alexandra Hospital, Royal Brisbane and Women's Hospital and The Townsville Hospital.

GCUH Intensive Care Specialist and FEISTY chief investigator, Dr James Winearls, said the team is investigating the use of a concentrated blood-clotting product early in the treatment of severely bleeding trauma patients.

"Fibrinogen is one of the key clotting factors which need to be replaced in severe traumatic bleeding," said Dr Winearls.

"Currently, fibrinogen is replaced using Cryoprecipitate, a blood product obtained from healthy volunteer donors, which can take a long time to administer and place a significant strain on blood banks.

"We're essentially seeking to establish if administering a fibrinogen concentrate is quicker and possibly more effective in reducing haemorrhage."

The FEISTY trial was made possible with more than \$600,000 in funding, including research grants from EMF (\$292,000, awarded to Dr Don Campbell); the National Blood Authority (\$190,000); and a Gold Coast Hospital and Health Service Grant (\$132,000).

The trial is being run in collaboration with the Australian Red Cross Blood Service.

Channel 7 Gold Coast News featured a story on the trial in 2017.



NEW GRANT:

NEW TECHNIQUE COULD REDUCE INTUBATION COMPLICATIONS IN CHILDREN

Clinicians began recruiting children in 2017 for a large Australasian clinical trial, led by Gold Coast University Hospital (GCUH) Paediatric Emergency Physician Dr Shane George.

The trial is investigating the benefits of using a Transnasal Humidified Rapid-Insufflation Ventilatory Exchange (THRIVE) technique to reduce complications associated with intubating -- where a flexible tube is inserted in the windpipe -- children in an emergency.

An EMF grant is funding the involvement of three Queensland hospitals in this PREDICT network trial: GCUH, Lady Cilento Children's Hospital (LCCH) and The Townsville Hospital.

LCCH Paediatric Intensive Care Specialist Dr Andreas Schibler and Department of Anaesthesia Anaesthetist, Dr Susan Humphreys led the pilot study, which was also co-funded by EMF.

FINAL REPORT:

PROGRAM KEEPING ELDERLY OUT OF EMERGENCY

Royal Brisbane and Women's Hospital (RBWH) clinicians have found the 'Hospital in the Nursing Home' (HiNH) program is successfully keeping aged care residents out of hospital.

Backed by a \$290,000 EMF grant, emergency physician Dr Bill Lukin led a research team to evaluate the impacts of the program at the RBWH, which has one of the State's busiest emergency departments.

"The HiNH program led to an average 17 per cent decrease in aged care patients presenting to the RBWH Emergency and Trauma Centre, a 36 per cent drop in hospital admissions per emergency presentation and an overall 47 per cent decrease in hospital admissions," Dr Lukin said.

"We also found the program was cost effective, returning \$17 in economic benefits for every \$1 invested. Most importantly, the program allowed aged care residents to get treatment at home, which is almost always better for an elderly patient."



FINAL REPORT:

IDENTIFYING CHILDREN WITH HIGH-RISK HEAD INJURIES

EMF co-funded a large Australasian clinical trial, which could see clinicians using fewer CT scans and less radiation exposure when managing children with head injuries.

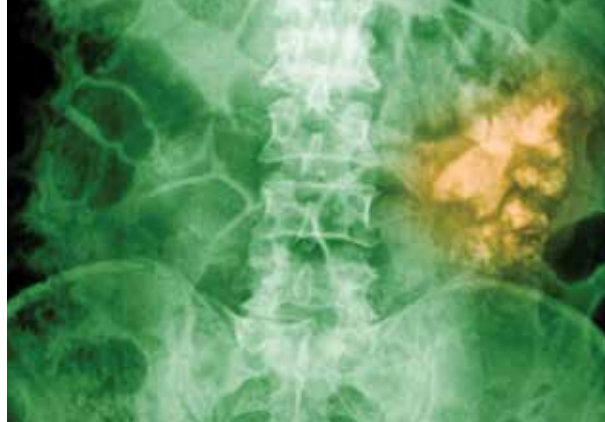
In a prospective observational study run across 10 Australian and New Zealand tertiary hospitals, and involving 20,137 children, researchers compared the sensitivities of three clinical decision rules for head injuries.

The research team found all three rules had a high sensitivity, with their work published in 2017 in the prestigious medical journal, *The Lancet*.

The study is likely to inform new clinical guidelines for head injuries, according to the lead investigator, Murdoch Children's Research Institute's Associate Professor Franz Babl.

"Internationally, the findings will provide a useful starting point for individual clinicians as well as hospitals or regional bodies contemplating the introduction or modification of one of the clinical decision rules," said Associate Professor Babl.

The study was run by clinicians involved in the PREDICT network and included Lady Cilento Children's Hospital Department of Emergency Medicine's Director, Associate Professor Jason Acworth and Staff Specialist Dr Natalie Phillips.



FINAL REPORT:

RELIEF FOR KIDNEY STONE SUFFERERS

EMF-funded researchers found a prostate medication, Tamsulosin, can also help ease the pain in patients with large kidney stones.

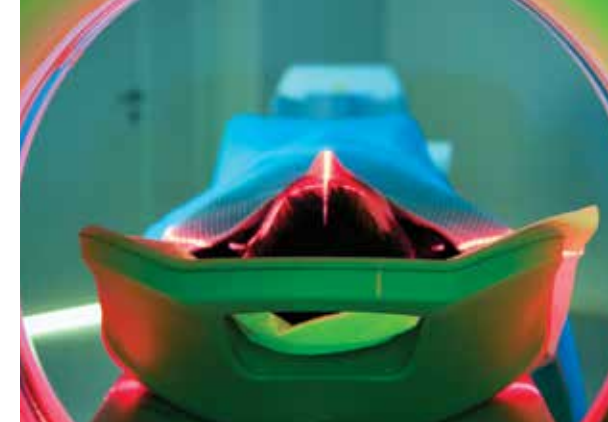
The treatment was trialled in patients across five Queensland hospital Emergency Departments.

Trial leader and The Townsville Hospital Emergency Department Director of Research, Associate Professor Jeremy Furyk said Tamsulosin was normally used to treat an enlarged prostate, but the research team found the treatment could also assist the passage of large kidney stones in the urine.

"Of more than 400 patients in the trial, we found that those who received Tamsulosin passed their large kidney stones more often than the placebo group," Associate Professor Furyk said.

"Treating patients with Tamsulosin for large stones could reduce the need for more complicated treatments, including surgery, and allow them to be treated closer to home rather than needing a referral to a major centre."

An EMF media release about this project received international media coverage (see page 96).



FINAL REPORT:

HEADACHE RESEARCH COULD LEAD TO BETTER DIAGNOSIS

Queensland emergency medicine researchers – led by Royal Brisbane and Women's Hospital Director of Emergency Medicine Research, Associate Professor Kevin Chu – are hoping their research will lead to new diagnostic guidelines and tests for patients who present to emergency departments with a headache.

They are also hopeful that their research will see more patients, with non-life threatening headaches visiting their GP for treatment rather than a hospital.

Following a unique snapshot study of 34 Queensland public and private hospitals³, the research team found only three per cent of patients who attended an Emergency Department with a headache had a life-threatening condition such as subarachnoid haemorrhage or bacterial meningitis.

However, an unexpectedly high proportion of patients (38%) underwent a CT-scan as part of their diagnosis. According to Associate Professor Chu, this suggests that there is scope to improve diagnostic testing in this group of patients.

The research team will publish further outcomes from this study in 2017-18.

³ Initially, this study was to include only five sites.



NEW GRANT:

REDUCING OXYCODONE PRESCRIBING FROM THE EMERGENCY DEPARTMENT

Dr Rina Savage from the Royal Brisbane and Women's Hospital (RBWH) is evaluating an intervention program to reduce the amount of oxycodone medication prescribed by emergency department doctors.

Oxycodone is a commonly prescribed opioid-based pain medication. However, patients can become addicted to the treatment.

At the RBWH, oxycodone is prescribed for 3875 patients annually (5% cases) who are discharged home from the Hospital's Emergency and Trauma Centre.

In addition to reducing the number of prescriptions, Dr Savage hopes to also improve practitioner awareness of local opioid prescribing behaviour and documentation around oxycodone use on discharge.

Dr Savage received an EMF Trainee grant in 2016-17.

RURAL AND REMOTE RESEARCH PROGRAM

In Australia, about one third of our population live in rural, regional and remote areas. Delivering appropriate emergency healthcare to Australia's rural and remote population is challenging.

Issues include limited access to medical and allied health services and appropriately qualified staff; an ageing population; increasing financial stress; alcohol and substance abuse; and domestic violence. The costs involved in transferring patients to larger treatment centres are also significant—ranging from \$3000 to \$10,000 per hour.

Recognising the need for dedicated research in this area, EMF developed a national Rural and Remote Research Program. EMF launched the Program in 2014, with funding provided by industry and philanthropic donations.

EMF has since awarded three grants totalling \$195,000 (refer to Table 2.1). These grants were awarded in 2014-15 and 2015-16.

THE YEAR AHEAD

EMF is committed long-term to its Rural and Regional Research Program. Our team will continue to explore targeted sponsorship and government funding opportunities so that we can support researchers advancing emergency medicine care in rural and remote areas.

Table 2.1: EMF Rural & Remote grant applications and funding (2014-17)

Financial year	Expressions of Interest	Awarded	Amount requested (\$)	Amount awarded (\$)	Amount returned (\$)	Program funding (\$)
2014-2015	160	1	11,000,000	95,730		100,000
2015-2016	0	2		100,000		100,000
2016-2017	0	0		0	4912	0
Total	160	3	\$11,000,000	\$195,730	\$4912	\$200,000



FINAL REPORT:

ON-SITE PATHOLOGY TESTING KEEPS INDIGENOUS PATIENTS CLOSE TO HOME WHILE SAVING MILLIONS

In a research study funded by EMF through its Rural and Remote Research Program, a Flinders University research team, led by Professor Mark Shephard, assessed both the medical and cost benefits of using on-site pathology testing, or Point-of-Care-Testing (POCT), for acute medical care in six remote health clinics in the Northern Territory.

The Flinders study was one of the first projects in the world to quantitatively evaluate the benefits of POCT in a remote setting.

The research team demonstrated that POCT is allowing Australians living in remote regions to receive effective emergency medical treatment close to home, while saving the Territory Government millions in avoided medical evacuations.

At the time of printing, the research group was waiting for a research paper on their work to be published. However, the evaluation is likely to lead to POCT being adopted more widely by Australian governments for rural and remote medical centres and hospitals.

This project received the first EMF-funded Rural and Remote grant.



TRANSLATION:

HOSPITALS INTERNATIONALLY ADOPTING SIMPLE INSTRUCTION CARD FOR URINE SAMPLES

External bacteria and skin cells can easily contaminate urine samples collected from patients in the emergency department.

EMF-funded researchers at the Princess Alexandra Hospital (PAH) Emergency Department found the contamination rate can be as high as 40 per cent. However, by offering patients a simple 'How to collect your sample' pictorial guide, the team reduced the urine sample contamination rate to 25 per cent.

Following EMF-led promotion of the study via a media release and social media, this guide has generated interest internationally. Requests for its use came from hospitals in Papua New Guinea, the United States and Europe.

Photo: Dr Rob Eley, David Toohey and Chantelle Judge; courtesy PAH

TRANSLATION

Internationally, it can take 17 years for research to reach clinical practice.⁴ However, EMF is successfully seeing its research projects translated much sooner.

EMF proactively selects for high-quality research projects with the short-term potential to inform better patient care.

Our unique grant selection process, along with the dedication of our researchers, is rapidly accelerating the clinical adoption of research.

In 2016-17, EMF-funded projects led to new Australasian clinical guidelines for chest pain assessment and new Queensland and New South Wales clinical guidelines for the treatment of babies with respiratory illness in the emergency department.

Queensland Emergency Departments also began adopting the new chest pain diagnostic and high-flow treatment regime behind these new guidelines.

By promoting its research outcomes, EMF was also successful in mobilising worldwide awareness of a new kidney stone drug trial (page 29), an alternative procedural sedative (page 35) and an effective illustration card for collecting urine.





Photo courtesy Fisher & Paykel Healthcare

TRANSLATION:

EMF FUNDING ADVANCING EMERGENCY MEDICINE TREATMENT FOR CHILDREN

After more than a decade of research, EMF-funded researchers are changing the way emergency clinicians treat infants with respiratory illness.

Following a large clinical trial, Queensland metropolitan and regional emergency departments are now using nasal high-flow⁵ breathing devices to treat babies presenting to the emergency department with breathing difficulties associated with respiratory illnesses, such as bronchiolitis.

Queensland Health introduced new clinical guidelines for

high-flow in late 2016 and is rolling out the device to rural hospital emergency departments.

The change in practice was the direct result of research initially funded by an EMF grant to Gold Coast University Hospital Emergency Medicine Staff Specialist, Dr Christa Bell and Lady Cilento Children's Hospital (LCCH) Paediatric Intensive Care Staff Specialist, Associate Professor Andreas Schibler.

The pair ran a pilot study using high-flow in emergency departments. This led to an NHMRC-funded multi-centre, randomised clinical trial, which recruited 1400 infants from 17 hospitals across Australia and New Zealand.

From preliminary data, Associate Professor Schibler suspects that when high-flow is used early in bronchiolitis infants, it has the potential to reduce Paediatric Intensive Care Unit admissions by 40 per cent and healthcare costs associated with treating infants with bronchiolitis by up to half. It also allows infants in rural and regional areas to be treated closer to home.

EMF awarded grants to two further high-flow pilot trials, to assess the value of the treatment for children and adults presenting to the emergency department with respiratory illness. In 2016-17, this pilot trial was completed and the team secured more than \$500,000 in follow-on funding to expand the trial to a multisite national trial, which will involve thousands of children.

Also in 2016-17, EMF awarded the research team a third grant to trial the use of high-flow in intubating critically ill children (see page 29).

Industry collaboration

Associate Professor Schibler and his team collaborated closely with the manufacturer of the high-flow device, Fisher & Paykel Healthcare Limited, to help improve the design of the device. The company also provided the device at no cost for the clinical trials.

According to Fisher & Paykel Healthcare Clinical Research Manager Michelle Muir, the collaboration between Fisher & Paykel Healthcare and the Lady Cilento Children's Hospital is an outstanding example of how industry and hospitals can work together to improve patient care and outcomes.

"We have worked with the clinical research team for over a decade and developed a unique and highly effective partnership. This collaboration has resulted in significant advances in product development, clinical research and clinical education," said Ms Muir.

In late 2016, Fisher & Paykel Healthcare released three short documentaries on the high-flow clinical trial. These can be viewed at: <https://www.fphcare.com.au/hospital/infant-respiratory/optiflow-junior/support/video-library/>

5 High-flow provides a supply of warm, humidified oxygen via a thin nasal tube and, because it's easy to use and comfortable for the patient, infants don't require sedation.



TRANSLATION:

HOSPITALS ADOPTING NEW PROTOCOL FOR PATIENTS WITH CHEST PAIN

Research by Royal Brisbane and Women's Hospital (RBWH) emergency physician, Professor Louise Cullen, is seeing Queenslanders with chest pain discharged quicker from the Emergency Department.

Chest pain is the second most common complaint among patients presenting to emergency departments, with more than 500,000 cases each year in Australia. However, only 15 per cent of these patients are actually suffering from acute coronary syndrome.

According to Professor Cullen, chest pain patients may undergo lengthy, intensive and costly assessments, which have traditionally taken between 12 and 24 hours.

With EMF funding, Professor Cullen and her team developed a protocol known as the IMProved Assessment of ChesT pain (IMPACT), which can safely accelerate the assessment of up to 70 per cent of emergency patients presenting with chest pain.

Using this protocol, emergency physicians can identify low risk patients not at risk of heart disease within two hours of arrival in the emergency department and discharge them without needing ongoing testing,

and more rapidly assess the majority of patients at an intermediate risk for heart disease.

In 2017, Queensland Health's Clinical Excellence Division funded the roll out of IMPACT to hospitals in Queensland. At the time of print, the protocol was live at the RBWH, Cairns, Nambour, Ipswich and the Sunshine Coast University hospitals.

In a health economic analysis it was estimated that if all Queensland hospitals adopted IMPACT, it would result in released capacity worth \$12.4 million annually.

In 2016, the National Heart Foundation of Australia/ Cardiac Society of Australia and New Zealand updated their Guidelines for the Management of Acute Coronary Syndromes (ACS), to incorporate an earlier protocol developed by Professor Cullen and her team, the ADAPT protocol. EMF also contributed funding to the initial research behind this protocol.



FINAL REPORT

NEW OPTION FOR PROCEDURAL SEDATION

In the world's largest trial of procedural sedatives propofol and ketofol, Australian emergency medicine researchers showed ketofol is a viable new alternative.

The team found that patients responded well to ketofol—a combination of the commonly used sedative propofol and another drug ketamine, which has both sedative and pain relieving properties.

The researchers debunked the popular theory that ketamine causes frequent adverse psychological reactions in adults.

Dr Anthony Bell, Director of Emergency Medicine at the Royal Brisbane and Women's Hospital said the trial was important because it showed that ketofol was as effective as propofol alone for sedating adults for procedures in the emergency department.

"Historically, many emergency department clinicians were reluctant to use ketofol in adults due to concerns that the ketamine in the mixture would trigger a significant negative psychological reaction," said Dr Bell.

"However, we found that ketofol didn't cause any more adverse reactions than propofol alone. Finding that ketofol is a viable alternative to propofol will give us more sedation options and may reduce the need for other opiate type medications."

An EMF media release and social media promotion of this research generated international interest.



NEW GRANT

TAPING BOXER'S FRACTURES

Emergency doctors at the Gold Coast University Hospital and Robina Hospital are trialling taping versus plaster for the treatment of boxer's fractures.

Boxer's fractures are often caused during a punch and are one of the most common types of hand injuries

Traditionally, doctors plaster the broken hand. However, it's possible that taping the little and ring fingers together is just as effective in helping the fractures heal.

Dr Richard Pellatt received an EMF Trainee grant in 2016-17 to run this clinical trial.





CHAPTER 3

Research Support Network (RSN)

RSN team members: Sharleen Young, Tegwen Howell, Richard Henshaw, Julia Hocking and Kelly Foster; absent: Amy Sweeny

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ABOUT THE RSN

Via the RSN, EMF is providing leadership and support as well as fostering multidisciplinary collaborations and the increased translation of new knowledge into better clinical practice.

The RSN operates via a hub and spoke model, with each hub supported by a dedicated Research Development Manager.

The RSN Manager, Tegwen Howell coordinates the Research Development Managers as well as liaises with and supports emergency medicine clinicians in Queensland Health Hospital and Health Service (HHS) areas not covered by the hubs.

NETWORK HUBS

1. 'Gold Coast, West Moreton and Darling Downs' Hub: operates across the southern and western areas of southern Queensland. It has part-time Research Development Managers based at the Gold Coast University Hospital, Ipswich Hospital and Toowoomba Hospital.

Research Development Managers:

- Amy Sweeny (Gold Coast Health), 0.5 FTE
- Sharleen Young (West Moreton HHS), 0.2 FTE
- Richard Henshaw (Darling Downs HHS), 0.3 FTE.

2016-17 HIGHLIGHTS

Post-pilot funding extended by two years

Worked with clinicians in 38 Queensland & 12 interstate hospitals

Led to first EMF grants for Logan, Mt Isa, Rockhampton & Toowoomba hospitals

Directly supported 8 Queensland HHSs

Liaised with 258 potential collaborators

Collaborated with 7 PHNs

Central Queensland HHS added to 'North of the River' Hub

RSN FAST FACTS

- Program developed in 2014-15
- Launched in 2015-16 as a 1-year pilot
- 3 hubs supporting 8 HHSs
- Funds 5 (3.0 FTE) Research Development Managers and 1 (0.7 FTE) RSN Manager
- Children's Health Hub part-funded (15%) by the PREDICT network

RSN OBJECTIVES

- The RSN will advance EMF's Queensland Research Program by facilitating an environment that encourages quality emergency medicine research, multidisciplinary collaboration and translation of new knowledge into better clinical practice in medical emergencies.
- The RSN will support and promote excellence in emergency medicine research, innovation and translation; encourage sustainable emergency medicine research; and build and strengthen emergency medicine research capacity through collaboration.

2. 'Children's Health Queensland' Hub: facilitates paediatric research in Queensland emergency departments. A full-time Research Development Manager is based at the Lady Cilento Children's Hospital.

This position is part-funded by the PREDICT (Paediatric Research in Emergency Departments International Collaborative) network through an NHMRC Paediatric Emergency Medicine Centre of Research Excellence (App 1058560) grant. PREDICT contributed \$75,000 over three years.

- Research Development Manager: Kelly Foster, 1.0 FTE.

3. 'North of the River' Hub: covers a significant area of South-East and Central Queensland, with a fulltime Research Development Manager working alongside emergency researchers in Redcliffe, Caboolture, Caloundra, Gympie, Sunshine Coast University Hospital, Maryborough, Hervey Bay, Bundaberg and Rockhampton hospitals.

- Research Development Manager: Dr Julia Hocking, 1.0 FTE.

EMF directly funds the RSN Manager position and the 'North of the River' Hub Research Development Manager position. The Managers for the other two hubs are employed by Queensland Health via EMF grants awarded to the respective HHSs.

SUPPORTING QUEENSLAND HEALTH HHS

In 2016-17, the RSN directly fostered research activity in eight Queensland Health HHSs. However, the RSN Manager provided additional assistance to emergency medicine researchers located in the remaining eight HHSs. The distribution of RSN support for the HHS is shown in Figure 3.1

With further funding, EMF could establish additional hubs to adequately resource the growing demand for research support outside the existing three RSN hubs.



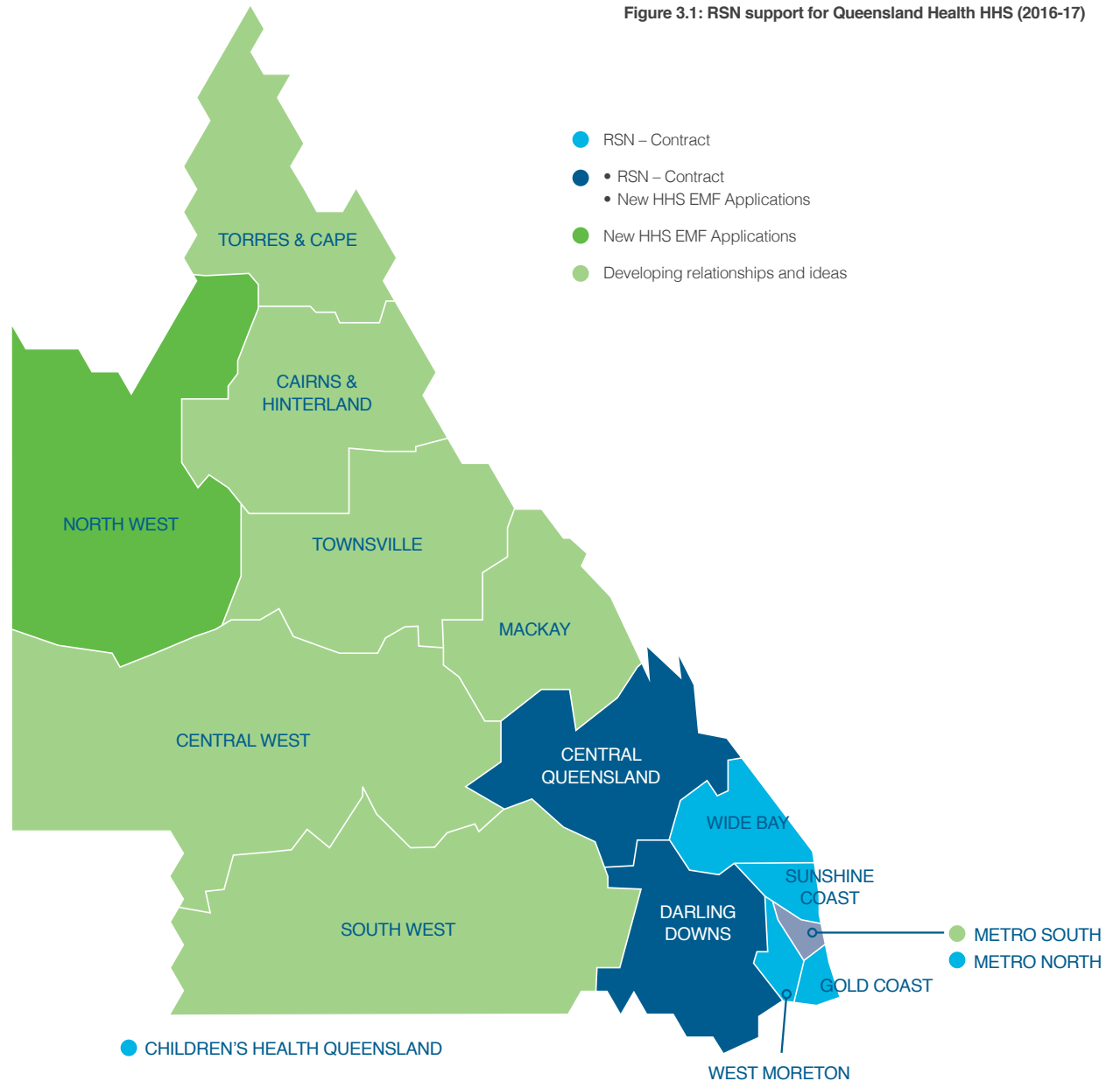
SUPPORTING GRANT APPLICATIONS

In 2016-17, the RSN team collectively supported emergency medicine clinicians in 39 EMF grant applications. In addition, the team also assisted clinicians with a number of grant applications to other funding bodies.

Through this involvement, the RSN was directly associated with the rise in grant applications to EMF, with 87 per cent of the new investigators and 70 per cent of previously funded investigators utilising the RSN team to submit EMF grants.

The RSN was directly responsible for EMF awarding grants to three HHS in 2016-17, who had previously not submitted applications—Central Queensland, North West, and Darling Downs. Of note, is the North West HHS project from Mt Isa Hospital Emergency Department; this project involves RSN-assisted collaborations with research groups from around Australia (page 43).

Figure 3.1: RSN support for Queensland Health HHS (2016-17)



FOSTERING RESEARCH CULTURE

The RSN actively fosters a culture of emergency research in hospitals through a range of initiatives. These initiatives are in addition to helping clinicians run research projects, apply for grants and write journal papers.

Research meetings: In 2016-17, the RSN coordinated regular emergency medicine research meetings at Redcliffe, Rockhampton, Ipswich, Toowoomba and Logan hospitals as well as at the Gold Coast University Hospital and the Sunshine Coast University Hospital. Several additional hospitals hosted ad hoc research meetings as they worked towards establishing their research base.

Collaborations: The RSN was directly responsible for coordinating an estimated 64 research grant application collaborations (for EMF and non-EMF grants) as well as engaging with 258 potential research collaborators during the year—including seven PHNs.

Conferences: To promote research outcomes from their hubs, the RSN team presented, either via an oral or poster presentation, at 10 conferences or symposiums (refer to page 52).

Newsletters: At the Gold Coast University Hospital, the RSN Research Development Manager introduced an emergency medicine research newsletter in 2016-17, to keep the team up-to-date with research developments and opportunities.

Workshops: The RSN ran a half-day Research 102 workshop for new EMF grant recipients in February 2017. Clinicians from sites across Queensland took part in the workshop.

The Children's Health Hub Manager, Kelly Foster, was actively involved in 2016-17 in helping to organise an Acute Care Research and Translation workshop as part of the EMF Research Symposium held in August 2017.

Interest groups: The RSN Manager launched a national emergency medicine social work research interest group in June 2017.



“We are extremely grateful to Dr Julia Hocking, Tegwen Howell and the rest of the RSN for kick-starting a research infrastructure at the Hervey Bay Hospital Emergency Department. We are growing rapidly and have significant enthusiasm for research, but little experience... A service like this is essential to creating a research infrastructure in regional hospitals.”

Dr David Johnson

Emergency Staff Specialist/Co-Director Emergency Medicine Training, Wide Bay Hospital and Health Service

RSN OPERATIONAL DEVELOPMENTS

The pilot phase of the RSN was successfully completed part way through 2016-17. Analysis reports for each Hub were submitted to the EMF Board, with each containing a range of metrics as well as submissions for support of the extension of the program.

Based on the outcomes of the RSN pilot phase, the EMF Board voted in November 2016 to extend funding for the RSN for a further two years, until 2018-19. This decision brought EMF's total financial commitment for the RSN to \$2,043,073.

The Board also approved extending the 'North of the River' Hub to include the Central Queensland HHS. This led to the Research Development Manager, Dr Julia Hocking, spending time working in the HHS, particularly with the Emergency Department team at Rockhampton Hospital.



RSN Research Development Manager, Dr Julia Hocking spent a week in May 2017 at the Rockhampton Hospital. Here Julia is pictured in the front row at the Emergency Department's Journal Club with (standing) Principal House Officers Dr Amender Campbell, Dr Talia Trigger and Dr Joseph Chua and Senior Medical Officer Dr Muhammad Umer Ihsan and (seated) Emergency Medicine specialists Dr Motaz Bahageel and Dr Tanya Mellett.

“The RSN Research Development Manager Richard Henshaw’s support was invaluable in establishing the ‘Reconnecting AFTer a Suicide Attempt’ (RAFT) project.⁶ Richard linked us with the key clinicians and researchers locally as well as other hospitals across Queensland. He also helped us identify new funding opportunities, allowing us to expand our emergency department-based research projects.”

Dr Mark Larsen

Research Fellow, Black Dog Institute

⁶ Working with clinical collaborators and young people who have previously attempted suicide, the Black Dog Institute is developing a mobile phone-based messaging intervention to support young people following their discharge from hospital after a suicide attempt.

THE YEAR AHEAD

Through the work of the RSN, EMF is anticipating a continued increase in emergency medicine research throughout Queensland.

In 2017-18, EMF will extend the role of the RSN Manager to 0.9 FTE. This will allow the Manager to provide further limited support, such as hosting research meetings, for clinicians outside the three hubs, in particular those based in North

Queensland. It will also allow for further opportunities to support key emergency medicine research areas, such as trauma, mental health, domestic violence and social work.

EMF will continue to fund the post-pilot phase of the RSN until early 2018-19, by drawing down on its financial reserves. However, the Foundation's limited reserves make it impossible to sustainably fund the entire program long-term.

The EMF team will liaise with other potential funding bodies to identify alternative funding sources to continue the RSN as well

as expand the number of hubs in Queensland. This includes exploring opportunities to take the RSN to other States and Territories.

EMF welcomes any enquiries from individuals or organisations interested in contributing to the financial support of the RSN or collaborating on research projects.

“I can say with confidence that the RSN Research Development Manager Sharleen Young was instrumental in facilitating my engagement with the Emergency Department at West Moreton. Without the help of this position I don't believe the research would have happened.”

Professor Justin Kenardy

Associate Director Recover Injury Research Centre, The University of Queensland; Director of Research & Innovation – West Moreton Hospital and Health Service

“RSN Research Development Manager Amy Sweeny has been essential in stimulating curiosity and interest in research as well as several research projects. Our outputs have steadily increased with more than 10 funded projects and 25 publications since Amy started. This position has created so much activity that we can now stimulate and support grass-roots research as well as facilitate large, multicentre projects.”

Professor Gerben Keijzers

Senior Staff Specialist Emergency Physician, Gold Coast Hospital and Health Service

“[Lady Cilento Children's Hospital receiving an EMF grant] is an absolutely outstanding result! It reflects the wonderful people you work with and the great contribution you [Kelly Foster], as a Research Development Manager, are providing. This will not just provide a great State-wide leadership opportunity for Children's Health Queensland Emergency, but also a great boost to its research profile.”

Dr Julie McEniery

Divisional & Medical Director Critical Care, Division of Critical Care Lady Cilento Children's Hospital



NEW GRANT:

MT ISA EMERGENCY MEDICINE DOCTORS LEADING NATIONAL RESEARCH PROJECT

In 2016-17, EMF's Research Support Network Manager, Tegwen Howell, worked closely with emergency medicine doctors from Mt Isa Hospital in North West Queensland, to successfully secure an EMF research grant.

The Mt Isa research team's project aims to improve the diagnosis and treatment of infections caused by the bacteria Group A *Streptococcal* (GAS) and Community acquired (CA) Methicillin Resistant *Staphylococcus aureus* (MRSA) or 'golden staph'.

Infections caused by these bacteria are particularly prevalent in Indigenous communities and the rates of incidence are high in North West Queensland.

Mount Isa Hospital Emergency Department Director, Associate Professor Ulrich Orda said the RSN played a significant role in assisting Mt Isa to submit its first research grant application to EMF.

"The EMF RSN Manager was available any time to provide feedback and guidance to accommodate the limited research time I had available," said Associate Professor Orda.

"We, as a rural and remote community, have limited opportunities to establish networks that might enable researchers to expand and collaborate," he said.

"A rural and remote and an Aboriginal and Torres Strait Islander focus are very important to provide results and solutions for these remote communities that will differ from those for urban settings."

The research team is now collaborating with groups from the Northern Territory, Western Australia and Victoria.

CHAPTER 4

Stakeholder Engagement



Ms Caitlin Lock at the 2017 EMF Grant Awards Ceremony breakfast

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EVENTS AND SPONSORED EVENTS

ANNUAL GRANT AWARDS CEREMONY

EMF celebrated the recipients of the 2016-17 Queensland Research Program grants at its annual Grant Awards Ceremony. The function was held in Brisbane on 22 February 2017.

This event provided EMF with an opportunity to publicly congratulate the recent grant recipients as well as celebrate research outcomes.

EMF was delighted to have as its special guest, the Member for Nudgee, Leanne Linard MP, who attended on behalf of the Queensland Minister for Health and the Minister for Ambulance Services, Cameron Dick MP. (Ms Linard is Chair of the Health, Communities, Disability Services and Domestic Family Violence Prevention Committee.)

Also speaking at the event were three emergency medicine researchers who were prior recipients of EMF grants: Dr Alexandra Markwell, Professor Julia Crilly and Associate Professor Doug Morel.



Dr David Spain and Prof Gerry FitzGerald



Ms Champika Pattullo, Dr Gary Mitchell, Ms Caitlin Lock and Dr Rina Savage



Ms Leanne Linard MP and Dr Gary Mitchell



Mr Zachary Hayward, Mr Dhruv Goel, Mr Spencer Hayward, Dr Alex Markwell, Ms Susan Cox, and Ms Angela O'Malia



QLD ACEM AUTUMN SYMPOSIUM

EMF sponsored the Free Paper Session at the 2017 Queensland Australasian College of Emergency Medicine (ACEM) Autumn Symposium.

Honour Magon from the Princess Alexandra Hospital won the Session while Dr Erik Wood from Redcliffe Hospital was the runner-up.

EMF Board Member, Dr David Spain and EMF Research Development Manager, Dr Julia Hocking, sat on the judging panel.

EMF RESEARCH SYMPOSIUM

To mark EMF's 10th anniversary in 2017, the EMF Board voted in favour of holding a Research Symposium.

The two-day event was held in the 2017-18 financial year on 24 and 25 August 2017. It included an awards evening, an Acute Care Research & Translation workshop and a one-day Symposium.

While the event will be covered in greater detail in next year's Annual Report, in summary: EMF brought together more than 40 speakers and panel members for the Symposium, with keynote speakers including Professor Kathryn Maitland, Professor Julia Crilly and Professor Daniel Fatovich.

EMF launched the promotional campaign for the Symposium at its February 2017 Grant Awards Ceremony.

The Symposium was entirely funded through event registrations and corporate sponsorship.

“Since 2008, I have been a co-investigator on 13 EMF grants worth more than \$1 million. These were predominantly multisite and multidisciplinary emergency related research projects, which have led to other grants, including NHMRC, as well as my career progression.”

Professor Julia Crilly

Professor of Emergency Care, Griffith University & Gold Coast Health

Professor Crilly was a guest speaker at the 2017 Grant Awards Breakfast, where she outlined the impact of EMF grants on her career in emergency medicine research.

EMF WEBSITE

In July 2016, EMF launched a new website to reflect the merger of its two operating entities: EMF and QEMRF. Prior to this, the Foundation operated separate websites for the entities.

The new website provided increased functionality for visitors and, for the first time, enabled searchable access to the EMF research portfolio.

In 2016-17, EMF actively drove traffic to the website via its social media activities. This resulted in a 30 per cent growth in page views compared with previous years (refer to Figure 4.1).

The growth as well as spikes in visitors strongly correlated with social media posts on EMF-funded research outcomes. For example, the majority (75%) of the traffic in December was associated with a story on the use of medical glue to hold IV lines in place.

Increased visitor traffic to the website in 2017 was also due to interest in the EMF website Research Symposium pages.

Refer to Appendix 6 for further website statistical data.

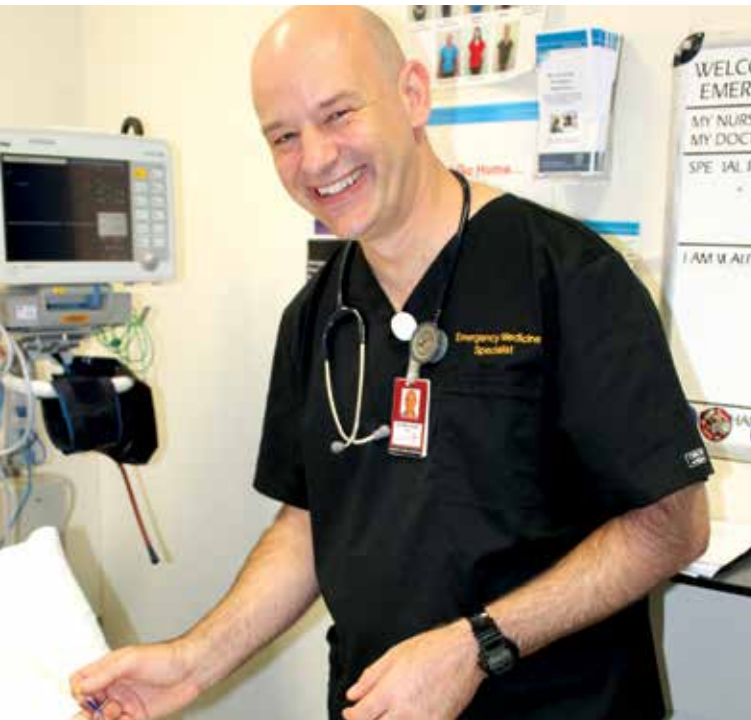
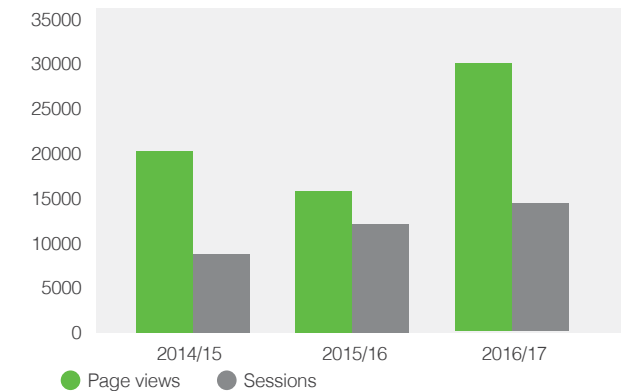
Please note with regard to Figure 4.1:

2014-15: Includes combined traffic for QEMRF and EMF websites

2015-16: Includes traffic for the QEMRF and EMF websites

2016-17: New EMF website, no data available for July-September period.

Figure 4.1: EMF website sessions and page views (2014/15-2016/17)



IN THE NEWS:

HOLDING IV DRIPS IN PLACE WITH MEDICAL GLUE

Caboolture Hospital Emergency Department clinicians have found a new way to make one of the most common medical procedures in the world – placing drips or intravenous (IV) lines – safer, less painful and potentially more cost effective.

Emergency Department Staff Specialist Associate Professor Simon Bugden said the failure rate for IV lines in the first 48 hours was 29 to 40 per cent in Australia and as high as 90 per cent internationally.

Photo: Caboolture Hospital emergency medicine specialist, A/Prof Simon Bugden with a patient. Photo courtesy Caboolture Hospital.

“By using medical skin glue, we reduced the failure rate to below 17 per cent,” he said.

“The glue made IV lines harder to unintentionally remove and was also shown to kill the bacteria that most commonly cause infections. The other major benefit was patient comfort, with patients in the trial reporting that the glue caused less irritation and they were less worried about the lines falling out.”

An economic evaluation of the breakthrough is underway, with the savings expected to run into the millions nationally.

An EMF media release about this project received wide coverage and had almost 5000 views on the EMF website.

The research was part of the Griffith University Avatar Group’s effort to improve vascular access.

MEDIA

In 2016-17, EMF was involved in distributing 15 media releases, which achieved national and international coverage in the media (see Appendix 7, Table A7.1).⁷

The high volume of media releases was the result of a two-pronged media strategy to proactively promote research outcomes from EMF-funded research projects, rather than projects with new grants; and to develop a close working relationship with key stakeholders, such as Queensland Health, to jointly issue media releases and hold press conferences.

As a result of this new media strategy, all EMF media releases are now added to the Health Minister's weekly media schedule, allowing the Minister and his team the opportunity to read the releases and nominate involvement in the release.

The approach led to two press conferences with the Health Minister in 2017: one at Ipswich Hospital promoting the lung ultrasound research by Dr Kylie Baker; and a second at the Royal Brisbane and Women's Hospital to promote research around the Hospital's Emergency & Trauma Centre Social Work Service (see page 50).

EMF also proactively engaged with university and industry collaborators to inform them of media and social media opportunities surrounding EMF-funded projects.

In November 2016, EMF ended the contract with a PR agency, which it had retained for several years. This decision was made primarily to reduce expenditure. However, bringing EMF's public relations activities in-house allowed EMF to better manage its stakeholder relationships.



Queensland Health Minister Cameron Dick with emergency specialist Dr Alex Markwell and emergency social worker Natalie Williams from the Royal Brisbane and Women's Hospital

⁷ Please note, EMF did not retain a media clipping service so exact media coverage is unknown.

IN THE NEWS:

BETTER CARE PATIENTS WITH MUSCLE INJURIES

More than 300,000 Australians who visit an emergency department each year with joint, ligament, muscle, nerve and tendon pain could be soon receiving better care thanks to new research on the best way to treat musculoskeletal injuries.

EMF-funded researcher and Queensland Health physiotherapist Kirsten Strudwick said the new study would create the benchmark for higher quality care for these types of injuries.

“The most common causes of musculoskeletal injuries are sport and exercising, falling at home or work, and minor accidents where people are hit by or run into an object,” Ms Strudwick said.

“We’re monitoring the treatment of patients in eight emergency departments and, by following them from the moment they enter the departments, through their treatment to post-discharge support, we can see how their experience varies. That information will be used to set a gold standard process for dealing with musculoskeletal injuries in the emergency department.”

Ms Strudwick is based at the Queen Elizabeth II Jubilee Hospital. Dr Anthony Bell is leading the project, which involves clinicians and researchers from Princess Alexandra Hospital and The University of Queensland. EMF awarded Dr Bell a \$274,000 grant to run the trial.

Channel 10 News ran a story on this project.

Photo: Queensland Health physiotherapist Kirsten Strudwick with patient Paul Lockley, courtesy Queensland Health.





IN THE NEWS:

EMERGENCY SERVICE HELPING DOMESTIC VIOLENCE VICTIMS

With an EMF grant, researchers are studying an Australian first 24/7 social work service at the Royal Brisbane and Women's Hospital (RBWH) Emergency and Trauma Centre, which is helping domestic violence victims.

RBWH Emergency Medicine Specialist Dr Alex Markwell is leading the first study of its kind to explore the role this service has for victims of abuse, as well as the potential benefits to the hospital and overall patient care.

"We know care for victims of violence who present to the emergency department in many hospitals can be delayed due to a number of reasons such as social workers not being on hand after hours but also victims being too frightened to raise their hand for help," Dr Markwell said.

"The RBWH Emergency social work service cared for more than 130 domestic violence patients last year, but we know the number of patients affected by domestic violence is probably a lot higher," she said.

"With the social work team working side-by-side with medical and nursing teams, they're able to quickly identify those who are at risk and need urgent support.

"In almost 90 per cent of cases, social workers are able to refer domestic violence victims to further appropriate services so that they can receive on-going help once they leave hospital.

"Furthermore, the team has told us victims of violence are brought straight to the RBWH by emergency services including the QPS and QAS because they know they will be immediately connected with a social worker as well as receive medical care."

EMF Chair, Dr Anthony Bell said the research project had the potential to benefit other Australian and New Zealand hospitals with large emergency departments.

"Hospital Emergency Departments in Australasia will be looking at the results of this research to see how they could benefit from running a similar 24/7 social work service," said Dr Bell.

Queensland Health and Ambulance Services Minister Cameron Dick said the hospital's Emergency and Trauma Centre was the only emergency department in the country providing a dedicated social work team around the clock.

"While many larger emergency departments have the ability to call in a social worker for victims of violence who present after hours or on weekends, RBWH has a team already on the ground to care for patients on arrival as well as connecting them to services such as Micah Projects and DV Connect," Mr Dick said.

"EMF saw the value of this service and funded the year-long research project. There is a lot of support for this program and the need to continue and investigate expanding the service elsewhere in Australia."

SOCIAL MEDIA

In 2016-17, EMF implemented a proactive social media strategy to increase the profile of emergency medicine research funded by EMF and to drive traffic to the new EMF website.

EMF made 531 posts over the 12 months to its three EMF social media channels: Twitter, Facebook and LinkedIn. Collectively, these posts were seen 254,657 times (see Figure 4.2).

Public interest in emergency medicine research stories was marked with the top ranking posts almost entirely comprised of research stories (refer to Appendix 8).

Social media followers grew substantially during the year, with between 21 and 78 per cent increases from 2015-16:

- Twitter: 21% (from 869 to 1048 followers)
- Facebook: 133% (from 335 to 780 followers)
- LinkedIn: 78% (from 125 to 223 followers).

The EMF social media followers have increased linearly since the sites were launched in 2013-14 as shown in Figure 4.3. (The Foundation also operated QEMRF social media sites in parallel, but these were deactivated in May 2016, with minimal followers.)

Figure 4.2: EMF Social media post impressions/views (2016-17)

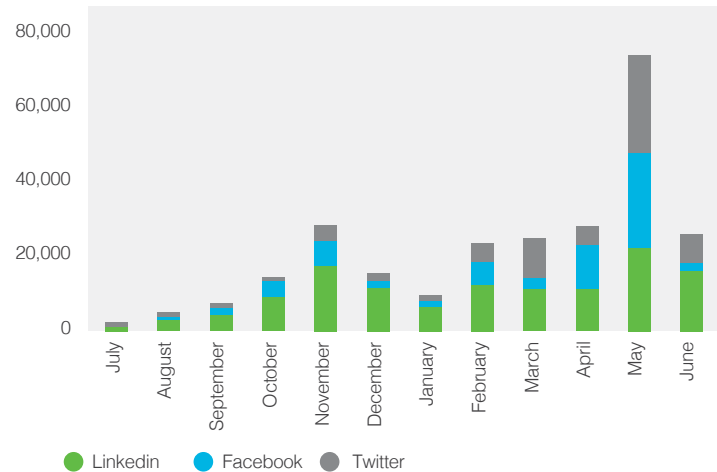
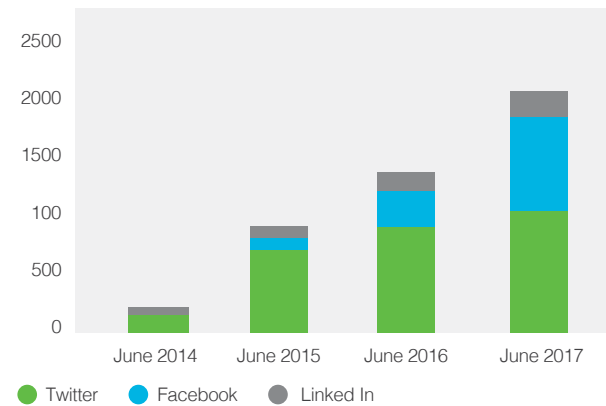


Figure 4.3: Growth in EMF social media followers (30 June 2014 to 30 June 2017)



EMF RESEARCH NEWSLETTER

Historically, EMF has maintained contact with emergency medicine researchers and the interested public via a quarterly e-newsletter.

In November 2016, EMF relaunched this newsletter to provide greater coverage of news on research outcomes. The newsletter template was redesigned to bring it into line with the new EMF branding and to drive people to the EMF website.

The newsletter distribution list grew from 996 in November 2016 to 1179 in May 2017. This list was almost double the number of the former newsletter distribution list used in 2015-16.

The newsletter was also promoted via the EMF website and social media channels, with the November 2016 edition seen by close to 3000 people on Facebook.

On average, each edition of the new newsletter was opened more than 2000 times. Refer to Appendix 9 for further distribution data on the newsletter.

COMMUNICATION COLLATERAL

In 2016-17, EMF released the second edition of its Corporate Profile. This brochure was first produced in 2015-16 and proved popular with emergency departments and EMF stakeholders.

During the year, EMF also produced a flyer to promote its Research Symposium in August 2017 and a 10th anniversary logo.

CONFERENCE PRESENTATIONS

The EMF team attended numerous conferences and research events throughout the year. Presentations on EMF-funded research outcomes were made at 10 events:

- NHMRC Symposium on Research Translation 2016
- ACEM ASM 2016
- PREDICT network meetings
- Rural Medicine Australia 2016 Conference
- Council of Ambulance Authorities (CAA) 2016 Conference
- Integrated Emergency Care for Older Persons Summit 2016
- Redcliffe Research Forum 2016
- West Moreton Research Showcase 2016
- St Vincent's Private Hospital (Toowoomba) Paediatric Symposium 2016
- Trauma 2017 Conference.

The majority of these presentations were made by members of EMF's RSN.

QUEENSLAND EMERGENCY RESEARCH COLLABORATIVE (QERC)

EMF continued to provide in-kind support for QERC, which is run by Queensland emergency medicine researchers; the group meets in the EMF Boardroom on a bi-monthly basis.

QERC aims to improve the quality and impact of emergency health research activities by supporting multi-centre research and facilitating collaboration between institutions, health care providers, researchers and industry partners involved in the delivery of and advancement to emergency healthcare.

EMF strongly encourages clinicians new to research to join QERC.

For more information on QERC, contact the EMF Research Manager via email: lisa.vandenberg@emffoundation.org.au

FUNDING PROPOSALS

QUEENSLAND RESEARCH PROGRAM

EMF submitted a proposal to Queensland Health in February 2017 to renew and extend its funding for the Queensland Research Program. (The existing funding for this Program ran until 30 June 2017.)

In the new proposal, EMF sought a renewal of the current two-year funding agreement with a CPI increase.

EMF also requested an extension of the funding for the ongoing support of the RSN and the establishment of new grant schemes to build research capability and capacity for emergency medicine nurses, paramedics and allied health professionals.

In September 2017, Queensland Health signed a renewal of the existing funding agreement for \$2 million per year for three years.

NATIONAL AND STATE RESEARCH PROGRAMS

EMF developed a short brochure highlighting the Foundation's Queensland Research Program's impact and outcomes, which the Queensland Health Director General sent to his counterparts in other states. He challenged the states to establish similar emergency medicine research programs through EMF and offered to cover the administrative costs for the first year.

In addition, EMF also canvassed a funding proposal for a national research program with the Medical Research Future Fund (MRFF) and met with the Federal Health Minister's Office in an effort to secure national funding for emergency medicine research.

EMF RESEARCH SYMPOSIUM

In December 2016, EMF began approaching potential sponsors for the EMF Research Symposium. A detailed sponsorship proposal was sent to collaborators on EMF research grants, including medical device and pharmaceutical companies and universities. EMF also approached companies with a potential link to emergency medicine research.

EMF was successful in securing sponsorship from several Queensland universities and medical companies, which will be reported on in 2017-18.

GOVERNMENT RELATIONS

EMF continued to liaise regularly with Queensland Health, in particular the Community Services Funding Branch, the Health Innovation, Investment and Research Office (HIIRO) and the Corporate Media Unit.

EMF is required to send all media, social media and publication materials regarding the Queensland Research Program to HIIRO for approval prior to publication. The Foundation also must submit in-depth six-monthly reports to HIIRO as well as an Annual Report.

THE YEAR AHEAD

At the time of print, EMF had hosted a highly successful two-day Research Symposium (in August 2017) to mark its 10 year anniversary. This event provided an unprecedented opportunity to raise its profile in the emergency medicine research community in addition to engaging with a range of key stakeholders.

The Foundation will continue to build its profile through social media and media channels, the website, newsletters and targeted events.

Further stakeholder engagement activities would require additional resources.



CONFERENCE PRESENTATION:

HELICOPTERS KEY TO RETRIEVING TRAUMA VICTIMS

In 2016-17, EMF RSN Research Development Manager – Gold Coast, Amy Sweeny, led a research project to analyse the latest data released by Retrieval Services Queensland (RSQ).

The team found that, on average, seven Queenslanders are airlifted daily to hospital suffering from a traumatic injury. They also found that two out of three trauma retrievals were for men and most were retrieved by helicopter.

These patients had suffered serious or life-threatening injuries caused by motor vehicle accidents, falls, explosions and physical violence, said Ms Sweeny.

“By analysing the data, we now know that about a third of trauma retrievals are for the Brisbane area, which wasn't unexpected given the population size,” she said.

“What did surprise us was the number of retrievals required for the North West, Torres and Cape region of Queensland – it was nearly 10 times what you'd expect based on the population size.”

In 2015-16, RSQ performed 19,375 aeromedical retrievals, of which 12.4 per cent were trauma related.

RSQ Executive Director, Dr Mark Elcock also played a key role in the research, which was presented at the Trauma 2017 Conference in Melbourne.



CHAPTER 5

Inside EMF

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The EMF team, including RSN team members; Left to right: Amy Sweeny, Julia Renaud, Lisa van den Berg, Kelly Foster, Tegwen Howell, Beth Chapman, Jody Tregidgo, Dee Tierney, Sharleen Young, Jonathan Staggs, Julia Hocking. Absent: Richard Henshaw.

OUR PEOPLE

EMF operates a small, but highly efficient team.

In 2016-17, EMF directly employed eight staff at a full-time equivalent (FTE) of 6.35; a further four staff (FTE 2.0) were indirectly employed via EMF grants—discussed later in more detail. Of these staff members, eight were based at EMF’s office in Milton, Brisbane.

The majority of the team were employed on a part-time basis, with only two staff members working full-time. By strategically engaging highly skilled staff part-time, the Foundation has been able to secure a team whose skill set rivals that of a much larger organisation.

EMF employed a core team of three staff who managed the research grant programs as well as a full-time Finance Officer, who was also responsible for office administration.

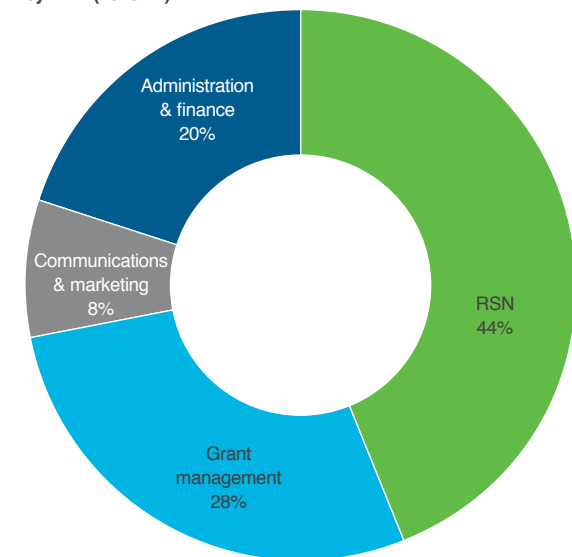
In July 2016, the company consolidated the CEO (0.65 FTE) and Finance Manager (0.5 FTE) positions with a combined General Manager & Company Secretary appointment (0.7 FTE). EMF also appointed a part-time Communications Manager (0.65 FTE) to meet its stakeholder reporting and promotion obligations.

EMF directly employed a Research Support Network (RSN) (see pages 37-38) Manager (0.7 FTE) and one RSN Research Development Manager position (1.0 FTE).

As mentioned previously, EMF funded a further four RSN Research Development Manager (2.0 FTE) positions through grants. These grants were awarded to Queensland Health Hospital and Health Services (HHSs) who employed the Managers. The four Managers were based externally at the Lady Cilento Children’s Hospital, the Gold Coast University Hospital, Ipswich Hospital and Toowoomba Hospital respectively.

The FTE distribution of EMF employees by role in 2016-17 is shown in Figure 5.1.

Figure 5.1: Distribution by FTE of staff directly and indirectly employed by EMF (2016-17)



OUR CULTURE

EMF values and encourages a supportive and collegial workplace. In return, the company expects employees to act with equity, justice, fairness and compassion in dealing with others both internally and externally.

To encourage this behaviour as well as a professional work ethic, EMF put in place a performance management framework. This included a range of policies such as Code of Conduct and Workplace Bullying.

The company also provides workplace health and safety training and education. (There were no workplace health and safety incidences in 2016-17.)

Where appropriate, training and development opportunities are provided to employees. In 2016-17, several employees attended conferences relating to emergency medicine.

To minimise its environmental impact, EMF provides paper and waste recycling options as well as recycling printer cartridges.

VOLUNTEERS

Volunteers contribute significantly to EMF and help keep administrative costs low.

All positions on the EMF Board, Finance Risk and Audit Committee, Scientific Advisory Committee and Strategic Grants Committee are voluntary and receive no remuneration.

Many members of our Research Evaluation Panel choose to forgo an honorarium payment and provide their time freely.

EMF IN THE COMMUNITY

EMF entered a team, "Shake, Rattle and Run", in the Darkness to Daylight event in Brisbane.

The 110km run, which was held on 3 May 2017, represented the 110 women, men and children who die annually in Australia from domestic and family violence.

THE YEAR AHEAD

Following the final consolidation of its team in 2016-17, EMF now operates a very lean, efficient workforce.

EMF will continue to embrace a flexible approach, such as part-time employment, to secure highly skilled team members.

In the short-term, the Foundation will attempt to utilise existing team capabilities to pursue business development and funding opportunities. However, the EMF Board will hold a strategy planning session in early 2017-18 to review the five-year operational strategy for the Foundation. Following this, EMF will assess the needs and resourcing for its team.



The EMF "Shake, Rattle and Run" team. Back row (left to right): Jason Currie (EMF Director), Julia Hocking (EMF), Jonathan Staggs (EMF), Dee Tierney (EMF); Second row (left to right): Jason Gill (West Moreton HHS), Irene Fancisco (West Moreton HHS), Tegwen Howell (EMF), Amy Sweeny (EMF) and Lee Thompson.

CHAPTER 6

Governance

*EMF Research Evaluation Panel member, Professor Kate Curtis;
photo courtesy of Sydney University*

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GOVERNANCE AND MANAGEMENT PROCESSES

BOARD GOVERNANCE

The roles and responsibilities of the EMF Board are described on page 12. The Board held five meetings during 2016–17.

The Finance, Risk and Audit Committee also met on five occasions, as did the Scientific Advisory Committee (SAC). The Strategic Grants Committee (SGC) met twice.

Further information about the EMF Board and its Committees is provided in Appendix 10.

RESEARCH GRANTS GOVERNANCE

EMF's governance framework provides additional advice and support for its research programs via the SGC, the SAC and the Research Evaluation Panel. EMF has three layers in place to ensure its research grants programs operate within a highly transparent and rigorous governance framework.

Step 1: Research Evaluation Panel (REP)

New grant applications are assessed by an expert member of REP. Applicants are provided with a copy of the assessment and given an opportunity to respond. Following this process, all applications are scored.

In 2016-17, grant applications were reviewed by 41 clinical and academic experts from Queensland, interstate and overseas. A list of these members as well as an overview of the role and responsibilities of the REP is provided in Appendix 10.

REP members are offered an honorarium for their time. However, historically panel members have largely volunteered their time.

Step 2: Strategic Grants Committee (SGC)

The SGC reviews the grant applications and selects a list of suggested grant recipients based on the REP score, strategic direction and impact. This list is provided to the EMF Board with the SGC's final recommendation for grants.

Step 3: EMF Board

The EMF Board makes the ultimate decision on grant recipients based on the recommendations of the SGC. To be successful, a project must be translatable and have the potential to deliver health economic outcomes along with better patient outcomes.

Oversight

EMF's research governance is overseen by the SAC. The committee is responsible for auditing the process annually to improve the assessment and reporting mechanisms as well as metric collection. In addition, the SAC also deals with any feedback regarding the research programs as well as requests for changes to approved projects. An overview of the role and responsibilities of the SAC is provided in Appendix 10.

RESEARCH GRANT REPORTING REQUIREMENTS

All EMF research grant recipients are required to provide six-monthly progress reports and a final report when the project is completed. Recipients must submit a request for any changes to the original approved project, including an extension of the period of their research grant.

QUEENSLAND GOVERNMENT REPORTING

EMF is required by the Queensland Government to provide detailed six monthly progress reports as well as submit an Annual Report each year by 31 October. The report provides an in-depth look at the Foundation's research programs and key research projects over the last 12 months as well as its vision for the future.

REGISTRATIONS AND LEGISLATION

EMF is a non-profit organisation with charitable, health promotion and deductible gift recipient (DGR) status.

Our Australian Business Number (ABN) is 17 128 057 170 and our Australian Company Number (ACN) is 128 057 170.



“I really appreciate the work that EMF does.

“Over the last decade, your support of emergency medicine research has been incredible.

“The structure and governance that you have developed to support projects has allowed both world-class research to occur, but also, and just as importantly, fostered emerging and new researchers within the specialty.

“This has made a huge difference and has been critical in a culture change over that time that embraces research more.

“I feel we are very lucky within our specialty.”

Dr Stuart Dalziel

Paediatric Emergency Medicine Specialist and Director of Emergency Medicine Research, Starship Children's Hospital, New Zealand; Chair, PREDICT network; Vice-Chair, Pediatric Emergency Research Network (PERN)

Dr Dalziel is a collaborator on several EMF-funded projects and lead for the CSE trial (see page 26).



CHAPTER 7

Financial performance

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COMPLETION OF ANNUAL FINANCIAL STATEMENTS

On 12 September 2017, the EMF Finance, Risk and Audit Committee recommended the EMF Board endorse the 2016-17 Financial Statements. The Board endorsed and recommended the Statements for signing on 4 October 2017.

Priestleys Chartered Accountants independently audited these Statements.

SOURCES OF FUNDING

In 2017, EMF received \$2 million (excluding GST) in funding from Queensland Health. This was the last tranche of funding under the existing agreement.

EMF also received \$250,994 from other sources. This included \$75,000 from the PREDICT network to part-fund the RSN Research Development Manager position for the Children's Health Queensland Hub (page 38) over three years—this equated to 15 per cent of the Hub funding.

A further \$175,894 was generated in interest on EMF's invested cash reserves.

Philanthropic and industry donations were down in 2016-17, reflecting the commitment of EMF's limited staff resources to securing sponsorship funding in 2016-17 for the EMF Research Symposium.



Figure 7.1: Breakdown of EMF operational expenses (2016-17)

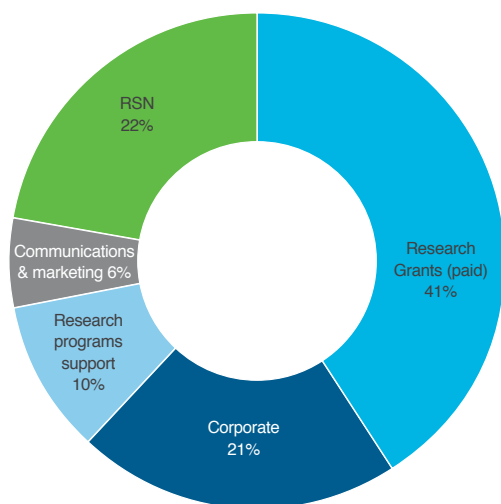
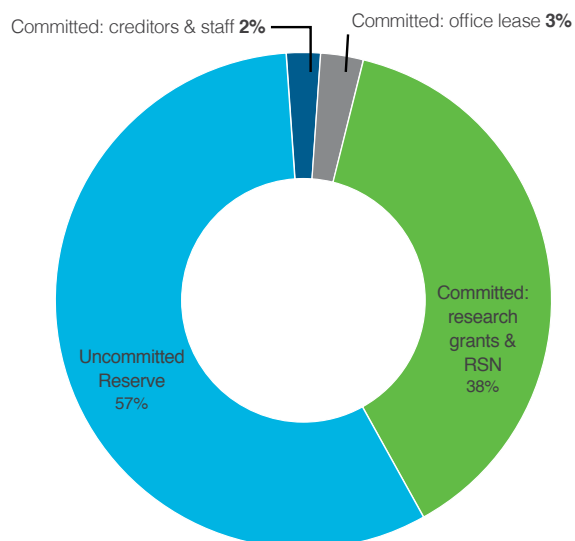


Figure 7.2: Breakdown of EMF committed & uncommitted available assets (as of 30 June 2017)



FINANCIAL OUTCOME

EMF operated within its budget, in accordance with total sources of funds and revenue from the Queensland Government for the 2016-17 financial year.

The company incurred expenses of \$2,553,947 (see Figure 7.1). Of these expenses, \$1,875,640 was dispersed in research and grant activities (with \$1,054,828 for research grants and \$820,812 for research infrastructure and support, including the RSN).

EMF ended the year with available assets of \$7,307,610, compared to \$7,712,211 in 2015-16. The decrease in assets was primarily due to EMF's commitment to drawing on the Foundation's cash reserves to continue funding the RSN.

As shown in Figure 7.2, 57 per cent of the available assets remained uncommitted as of 30 June 2017.

QUEENSLAND RESEARCH PROGRAM RESERVE

EMF has a cash 'Reserve' (previously referred to as a Corpus) allocated for its Queensland Research Program.

The Reserve is an amount of cash set aside by the Board as 'untouched and unallocated unless formally agreed upon'.

It can be used to fund additional emergency medicine research or research related projects in Queensland.

The Reserve is also designed to allow the Board to meet commitments should funding be withdrawn.

In 2016-17, uncommitted funds in the Reserve were reduced to \$4,155,000 million after the Board quarantined \$2,770,396 million to meet commitments for research grants and the RSN.

In the previous financial year, \$2 million of the Reserve funds were placed with the Commonwealth Bank of Australia to access better interest rates and diversify our investments in 2015-16. However, in 2016-17 these funds were transferred to the Queensland Treasury Corporation (QTC) as it offered higher interest rates and the investment was 100 per cent guaranteed as well as easily accessible.

BUDGET STRATEGY

In 2016-17, EMF completed the consolidation of its staffing and is now operating with the minimal staffing numbers possible to sustain the organisation (see page 55).

The company also rationalised expenditure and significantly reduced spending on business development, administration, finance, marketing and communications activities. This included taking its public relations activities in-house and ending consultancy arrangements previously in place.

The cost cutting measures undertaken during the year led to a 47 per cent reduction in operational expenses compared with 2015-16.⁸

⁸ This comparison included the combined EMF and QEMRF operational expenses for 2015-16.

THE YEAR AHEAD

In September 2017, Queensland Health renewed its contact with EMF to provide \$6 million (excluding GST) in funding for the Queensland Research Program over the next three years. This agreement did not include any additional funding for additional grant schemes or the RSN as requested by EMF.

To meet the funding needs for the RSN, EMF will meet with potential funding bodies to access additional funding for EMF's RSN program in Queensland.

The Foundation will also meet with other Australian Health Departments to discuss funding opportunities for expanding the RSN interstate as well as establishing additional state-based research programs.

EMF will continue to target businesses to leverage additional funding for our Queensland Research Program and the Rural and Remote Program.

In addition, our team will also meet with universities, industry and other not-for-profit organisations to explore opportunities for research funding collaborations and rationalising the administrative costs associated with running research grant programs. In particular, EMF will endeavour to leverage the relationships established with the EMF Research Symposium sponsors to build long-term grant funding partnerships.

A key remaining avenue for cost reduction for EMF is its office rental expenditure. This accounted for nearly a third (31%) of corporate expenses in 2016-17. The current lease expires in November 2018 and EMF will seek alternative premises with a reduced rental commitment to further reduce operational costs. Options include both in-kind opportunities for office space and highly competitive commercial possibilities.

STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2017

	2017 (\$)	2016 (\$)
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	7,244,290	7,661,490
Trade and other receivables	63,320	50,721
Other assets	28,221	18,709
TOTAL CURRENT ASSETS	7,335,831	7,730,920
NON CURRENT ASSETS		
Property, Plant & Equipment	9088	22,474
TOTAL NON CURRENT ASSETS	9088	22,474
TOTAL ASSETS	7,344,919	7,753,394
LIABILITIES		
CURRENT LIABILITIES		
Trade and other payables	126,744	234,314
TOTAL CURRENT LIABILITIES	126,744	234,314
NON CURRENT LIABILITIES		
Provisions	4540	2522
TOTAL NON CURRENT LIABILITIES	4540	2522
TOTAL LIABILITIES	131,314	236,836
NET ASSETS	7,213,605	7,516,558
EQUITY		
Retained surplus (deficit)	7,213,605	7,516,558
TOTAL EQUITY	7,213,605	7,516,558

A full set of EMF's financial statements is available online at emergencyfoundation.org.au

INDEPENDENT AUDITOR'S REPORT

Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Emergency Medicine Foundation Ltd (the company), which comprises the statement of financial position as at 30 June 2017, the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of Emergency Medicine Foundation Ltd is in accordance with the Corporations Act 2001, including:

- i) giving a true and fair view of the company's financial position as at 30 June 2017 and of its financial performance for the year then ended; and
- ii) complying with Australian Accounting Standards – Reduced Disclosure Requirements and the Corporations Regulations 2001.

Basis for Opinion

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

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the company, would be in the same terms if given to the directors as at the time of this auditor's report.

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

Information Other than the Financial Report and Auditor's Report Thereon

The directors are responsible for the other information. The other information comprises the information included in the company's annual report for the year ended 30 June 2017, but does not include the financial report and our auditor's report thereon. Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon. In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

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

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

Auditor's Responsibilities for the Audit of the Financial Report

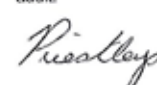
Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that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

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

Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

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



PRIESTLEYS
Chartered Accountants

Liability limited by a scheme approved under Professional Standards Legislation



M C Andreassen
Partner

Signed this 12th day of October 2017, at Brisbane.



APPENDICES

FOR THE YEAR ENDED 2017

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APPENDIX 1: QUEENSLAND RESEARCH PROGRAM DATA

Table A1.1: Recipients of grant rounds 25 and 26

	Principal investigator	Project title	Site	Amount (\$)
Trainee				
1	Dr Gary Mitchell	Diagnosis of Acute Coronary Occlusion in patients with a Ventricular Paced Rhythm	Royal Brisbane and Women's Hospital	16,866
2	Dr Richard Pellatt	Effect of Buddy Taping vs Plaster in Boxer's Fractures (5thMC) –Buddy Study	Gold Coast University Hospital	17,425
3	Dr Amy Archer-Jones	Will a replicable ultrasound training intervention improve intravenous cannulation processes?	Gold Coast University Hospital	22,541
4	Dr Rina Savage	Prescribing patterns and communication for oxycodone on ED discharge	Royal Brisbane and Women's Hospital	34,955
5	Dr Sangeeth Mohan	Carotid Doppler Ultrasound with Passive Leg Raise for fluid responsiveness	Logan Hospital	5,150
Staff Specialist				
6	Dr Jacob Crosdale ⁹	Head and Neck Trauma Transfers for Scanning	Toowoomba Hospital	8,620
7	Dr Sheree Conroy	Patients transfers from rural hospitals – are we getting it right?	Toowoomba Hospital	5,940
8	Dr Mark Scott	The Value of Avoiding the Pain of IV Catheter Failure	Caboolture Hospital	30,550
9	Dr Ogilvie Thom	Link between clinical errors and emergency shift patterns?	Nambour Hospital	19,796
10	Dr Shane George	Is prednisolone an effective treatment for Bell's Palsy in children?	Gold Coast University Hospital	68,179
11	Dr Luke Burman ¹⁰	Ketamine versus Propofol in sedation of psychiatric patients requiring retrieval	The Townsville Hospital	\$8,400
12	Dr Geoffrey Rofe	Evaluating rates of skin colonisation with MRSA or Group A Streptococci	Mt Isa Hospital	68,224
13	Dr Denise Blake	First aid oxygen treatment of divers with decompression sickness	The Townsville Hospital	30,003
14	Dr Shane Martin	A brief psychological intervention to promote recovery after mild TBI	Ipswich Hospital	69,657
15	Dr Erik Wood	Propofol on Trial for Headaches in the Emergency Department setting	Redcliffe Hospital	7,860
Project				
16	Dr Don Campbell	FEISTY - Fibrinogen Early In Severe Trauma studY	Gold Coast University Hospital	292,937
17	Prof Louise Cullen	Too much of a good thing; Does fluid resuscitation worsen septic shock?	Royal Brisbane and Women's Hospital	77,233
18	Dr Shane George	Kids THRIVE study: preventing low oxygen levels during emergency intubation in children.	Gold Coast University Hospital	282,290
19	Dr Mark Edwards	A data linkage and patient outcome study of aeromedical retrieval services in Central Queensland	Rockhampton Hospital	50,000
Research Scholarship				
20	Dr Jeremy Furyk	Management of Paediatric Status Epilepticus in Australia and New Zealand	The Townsville Hospital	150,000
			TOTAL	1,266,626

Visit the EMF website for further details about each of these research projects.

⁹ This project was subsequently withdrawn by the applicants.

¹⁰ In July 2017, the Principal Investigator was changed to Dr Vinay Gangathimmaiah

Table A1.2: EMF Queensland Research Program applications and grants awarded (2008/09-2016/17)

Financial Year	Applications	Successful	Percentage successful	Amount requested	Amount Awarded	Percentage awarded
2008-2009	30	20	67%	\$ 2,392,317	\$ 1,316,300	55%
2009-2010	28	20	71%	\$ 5,530,428	\$ 2,708,489	49%
2010-2011	24	13	54%	\$ 4,030,515	\$ 1,671,377	41%
2011-2012	15	8	53%	\$ 1,727,419	\$ 876,531	51%
2012-2013	20	12	60%	\$ 3,003,916	\$ 1,025,535	34%
2013-2014	22	10	45%	\$ 3,114,609	\$ 1,085,014	35%
2014-2015	22	12	55%	\$ 3,294,469	\$ 1,792,706	54%
2015-2016	29	16	55%	\$ 2,873,933	\$ 1,209,448	42%
2016-2017	49	20	41%	\$ 4,801,375	\$1,266,626	26%
Total	239	131	55%	\$ 30,768,983	\$12,952,026	42%

Table A1.3: EMF Queensland Research Program funding across various schemes (2008/09-2016/17)

Grant Type	Number	Average (\$)	Minimum (\$)	Maximum (\$)	Total
Trainee	19	16,892	5150	40,000	\$320,956
Staff Specialist	54	41,041	5940	70,000	\$2,257,248
Project	37	160,074	25,170	300,000	\$5,922,725
Program	7	271,584	90,056	622,939	\$1,901,088
Capacity Building	8	150,000	30,000	210,000	\$1,200,000
Research Scholarship	6	225,000	150,000	450,000	\$1,350,000

Table A1.4: EMF Queensland Program grant funding distribution by HHS (2016-17)

HHS	Applications	Successful	Amount requested (\$)	Amount awarded (\$)
Cairns & Hinterland	1	0	7817	0
Central QLD	1	1	300,000	50,000
Central West	0	0	0	0
Children's Health QLD	7	0	579,770	0
Darling Downs	2	2	14,560	14,560
Gold Coast	10	5	1,133,223	683,372
Mackay	0	0	0	0
Metro North	11	5	843,576	167,464
Metro South	7	1	474,508	5150
North West	1	1	68,224	68,224
South West	0	0	0	0
Sunshine Coast	2	1	399,796	19,796
Torres and Cape	0	0	0	0
Townsville	6	3	949,737	188,403
West Moreton	1	1	69,657	69,657
Wide Bay	0	0	0	0
Total	49	20	4,801,375	1,266,626

Table A1.5: EMF Queensland Research Program – historical HHS funding distribution (2008/09-2016/17)

HHS	Applications	Successful	Amount requested (\$)	Amount awarded (\$)
Cairns & Hinterland	6	3	963,181	596,013
Central QLD	1	1	300,000	50,000
Central West	0	0	0	0
Children's Health QLD	18	7	2,185,373	776,960
Darling Downs	2	2	14,560	14,560
Gold Coast	35	20	4,912,492	1,834,394
Mackay	0	0	0	0
Metro North	79	41	11,506,089	4,312,344
Metro South	55	25	6,238,172	2,622,646
North West	1	1	68,224	68,224
South West	0	0	0	0
Sunshine Coast	13	8	588,246	154,159
Torres and Cape	0	0	0	0
Townsville	25	19	3,460,727	2,052,355
West Moreton	4	4	513,938	470,372
Wide Bay	0	0	0	0
Total	239	131	30,768,983	12,952,026

Table A1.6: First time applications from principal investigators

Financial year	New principal investigator	Previously funded principal investigator	Total
2008-09	28	1	29
2009-10	19	12	31
2010-11	14	11	25
2011-12	8	5	13
2012-13	5	17	22
2013-14	7	13	20
2014-15	8	13	21
2015-16	9	20	29
2016-17	31	18	49
Total	129	110	239

APPENDIX 2: RESEARCH PUBLICATIONS (2016-17)

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Table A2.1: Research publications

Financial year	Journal Publications	Books/Book chapters	Conference presentations & Invited speaker	Total	Citations
2008-09	1	0	1	2	13
2009-10	10	2	2	14	209
2010-11	14	0	3	17	408
2011-12	18	0	6	24	581
2012-13	38	5	7	50	404
2013-14	52	1	15	68	809
2014-15	54	1	40	95	518
2015-16	56	1	82	139	433
2016-17	69	3	71	143	266
Total	312	13	227	552	3640

APPENDIX 3: QUEENSLAND RESEARCH PROGRAM – CLINICAL TRIAL DATA & ADDITIONAL FUNDING

Table A3.1: EMF Queensland Research Program – grants allocated to clinical trials, clinical studies and data analysis (2008/09-2016/17)

Year grant awarded	Clinical trial – completed		Clinical trial – active		Clinical study – completed		Clinical study – active		Data analysis		Total patients
	Trials	Patients	Trials	Patient target	Studies	Patients	Studies	Patient target	Projects	Patients	
2008-09	3	682	0	0	7	2538	0	0	3	1369	4589
2009-10	4	1035	0	0	5	7225	0	0	3	125,000	133,260
2010-11	3	3150	0	0	3	828	0	0	0	0	3,978
2011-12	3	596	0	0	1	20,137	0	0	1	99	20,832
2012-13	4	4188	0	0	1	3400	0	0	0	0	7588
2013-14	6	2208	1	200	3	4911	0	0	0	0	7319
2014-15	2	1331	4	1294	0	0	1	640	0	0	3265
2015-16	3	4745	4	1570	0	0	4	2572	1	25,000	33,887
2016-17	0	0	10	3418	0	0	5	N/A	1	N/A	3418
Total	28	17935	19	6482	17	39,039	10	3212	9	150,000	218,136

Table A3.2: EMF Queensland Research Program – additional funding sources for projects (2008/09-2016/17)

Year grant awarded	In-kind		Leveraged		Linked		Follow-on		Total (\$)
	Projects	Funding (\$)	Projects	Funding (\$)	Projects	Funding (\$)	Projects	Funding (\$)	
2008/09	2	\$192,800	0	0	1	\$108,259	1	\$1,000,000.00	\$1,301,059
2009/10	1	\$25,000	1	\$20,000	1	\$1,718,864	0	0	\$1,763,864
2010/11	7	\$1,327,064	5	\$660,351	0	0	6	\$12,792,132	\$14,779,547
2011/12	3	61,722	1	140,314	0	0	0	0	202,036
2012/13	2	95,000	1	1,613	4	5,733,847	3	1,222,316	7,052,776
2013/14	9	1,803,551	6	390,070	1	2,665,321	3	8,700,000	13,558,942
2014/15	6	209,457	6	89,323	1	1,198,986	0	0	1,497,766
2015/16	4	174,586	4	302,240	0	0	1	800,000	1,276,826
2016/17	9	856,595	1	322,934	2	2,085,460	2	1,235,801	4,500,790
Total	43	\$4,745,775	25	\$1,926,844	10	\$13,510,737	16	\$25,750,249	\$45,933,605

APPENDIX 4: ACTIVE RESEARCH COLLABORATORS

Australian hospitals

Atherton Hospital
Austin Hospital
Bowen Hospital
Bundaberg Base Hospital
Caboolture Hospital
Cairns Hospital
Caloundra Hospital
Children's Hospital Westmead
Dalby Hospital
Dandenong Hospital
Emerald Hospital
Esk Hospital
Fiona Stanley Hospital
Frankston Hospital (Victoria)
Gatton Hospital
Gold Coast University Hospital
Greenslopes Private Hospital
Hervey Bay Hospital
Ipswich Hospital
John Hunter Hospital
Joyce Palmer Health Service (Palm Island)
Kilcoy Base Hospital
Kingaroy Hospital
Lady Cilento Children's Hospital
Laidley Hospital
Launceston General Hospital
Liverpool Hospital
Logan Hospital
Mackay Hospital

Macquarie University Hospital
Mater Adult Hospital (Brisbane)
Mater Private Hospital Redland
Mater Private Hospital, Pimlico
Monash Medical Centre
Mt Isa Hospital
Nambour Hospital
Princess Alexandra Hospital
Princess Margaret Hospital (Perth)
Queensland Elizabeth II Jubilee Hospital
Redcliffe Hospital
Redlands Hospital
Robina Hospital
Rockhampton Hospital
Roma Hospital
Royal Adelaide Hospital
Royal Brisbane and Women's Hospital
Royal Children's Hospital (Melbourne)
Royal Hobart Hospital
Royal North Shore Hospital
Royal Perth Hospital
Royal Prince Alfred Hospital
Sir Charles Gairdner Hospital
St Andrew's Private Hospital
St George Hospital
St Vincent's Private Hospital
Sunshine Hospital (Victoria)
Sunshine Coast University Hospital
The Canberra Hospital
The Prince Charles Hospital

The Townsville Hospital
The Tweed Hospital
The Wesley Hospital
Thursday Island Hospital
Toowoomba Base Hospital
Western Hospital (Adelaide)
Women's and Children's Hospital (Adelaide)

Primary Health Networks (Australian Government Department of Health)

Brisbane North
Brisbane South
Central Queensland, Wide Bay, Sunshine Coast
Darling Downs, West Moreton
Gold Coast
North Queensland
North West Queensland

Australian research centres, institutions and universities

Australian Association of Social Workers
Australian Centre for Pre-Hospital Research, Monash University
Australian College of Rural and Remote Medicine
Australian Institute of Tropical Health and Medicine
Australian Red Cross Blood Service Australian Venom Research Unit
AVATAR Group, Griffith University Centre for Applied Health Economics
Black Dog Institute
Bond University
Brisbane Diamantina Health Partners
Central Queensland University

Central Queensland University
Centre for Clinical Research in Emergency Medicine, Harry Perkins Institute of Medical Research
Centre of Research Excellence in Paediatric Emergency Medicine
CSIRO
Deakin University
Flinders University
Griffith University
James Cook University
Joseph Epstein Centre for Emergency Medicine Research, Western Health (Victoria)
Menzies School of Health Research
Monash University
Murdoch Children's Research Institute
QIMR Berghofer
Queensland University of Technology
The George Institute for Global Health
The University of Melbourne
The University of Queensland
University of Newcastle
University of Southern Queensland
University of Sydney
University of Tasmania
University of the Sunshine Coast
University of Western Australia

Other organisations

Advanced Care Planning Australia
Aeromedical Innovation Australia
Allied Health Professions Australia
Armadale Health Service

Auscare Group
Australian Red Cross Blood Service
Australian Sepsis Network
CareFlight Queensland
CareFlight Northern Territory
Central Queensland Hospital and Health Services
Council of Ambulance Authorities Inc.
Far North Queensland Hospital Foundation
Fisher & Paykel Healthcare Inc.
GE Healthcare
Heart Foundation Australia
Ipswich Hospital Foundation
LifeFlight Australia
Mater Hospital Foundation
Metro North Brisbane Medicare Local
Micah Projects
Monash Health
National Blood Authority
Northern Territory Department of Health
One Quarter
Outback Futures
Pathology Australia
Pathology Queensland
Pharmacy Guild of Australia
Queensland Alliance for Mental Health
Queensland Ambulance Service
Queensland Health, Clinical Forensic Medicine Unit
Queensland Pathology
Queensland Police Service
Queensland Trauma Registry

RBWH Foundation
Red Rose Foundation
Retrieval Services Queensland
Royal Australasian College of Physicians
Royal Flying Doctors (Qld)
Royal Life Saving Society (Qld)
Suicide Prevention Australia
Toowoomba Hospital Foundation
TPCH Foundation

Overseas hospitals

Auckland City Hospital (New Zealand)
Christchurch Hospital (New Zealand)
Kidzfirst Hospital (New Zealand)
Poole Hospital (UK)
Skane University Hospital (Sweden)
Starship Children's Hospital (New Zealand)
Trollhattan Norra Älvsborgs County Hospital (Sweden)

Overseas universities, research institutions and organisations

Divers Alert Network America
Imperial College, London
London School of Hygiene and Tropical Medicine (UK)
NHS Lothian/Barnardo's Scotland
The Sahlgrenska Academy, University of Gothenburg (Sweden)
U.S. Department of Veterans Affairs
University of Alberta
University of Auckland
University of British Columbia
University of Minnesota
University of Texas

APPENDIX 5: FINAL REPORTS – QUEENSLAND RESEARCH PROGRAM

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
Staff specialist								
Dr Fiona Thomson	<ul style="list-style-type: none"> A/Prof Andreas Schibler A/Prof Luregn Schlapbach Ms Donna Franklin 	High-flow: a new oxygen therapy in children with acute respiratory failure	Lady Cilento Children's Hospital	\$70,000	2015-17	The researchers piloted a new device for treating children presenting to emergency departments with respiratory failure. The team is now conducting a multisite Australasian trial.	<ul style="list-style-type: none"> \$15,000 (in-kind) \$321,000 Thrasher Foundation Award \$300,000 Children's Health Foundation 	
Dr Michael Sinnott	<ul style="list-style-type: none"> Ms CJ Cabilan Dr Rob Eley Mr James Hughes 	Exploring the practice of nurse-initiated medications in the ED	Princess Alexandra Hospital	\$7,478.84	2014-16	The research team concluded that institutions supporting nurse-initiated medications should put in place key systems to enable the maintenance of patients' and nurses' professional safety. These include, access to evidence-based resources and continuing support and education for nurses.		Cabilan CJ, Eley R, Hughes JA, Sinnott M., "Medication knowledge and willingness to nurse-initiate medications in an emergency department: a mixed-methods study", <i>Journal of Advanced Nursing</i> , 2016; 1;72(2):396-408
Dr Joseph Ting	<ul style="list-style-type: none"> Dr David Sturgess Dr Sandhir Prasad 	The 'Tissue Doppler Evaluation of Diastolic Dysfunction in Emergency Department Acute Coronary Syndromes' (TEDDy-ED) pilot study	Mater Hospital Brisbane	\$68,058	2013-17	The researchers found they could identify patients at risk of suffering a major cardiac event within months of presenting to the emergency department with chest pain.		Pending
Dr Benjamin Close	<ul style="list-style-type: none"> A/Prof Jeremy Furyk Dr Robyn Ray Dr Deahne Leyas 	A randomised controlled trial of intravenous paracetamol and oral paracetamol to control acute pain	The Townsville Hospital	\$40,870	2015-16	The research team compared using IV paracetamol versus oral paracetamol to manage 87 adult patients with moderate to severe pain in a prospective, randomised, double blinded, double dummy placebo controlled trial.	\$20,000 (in-kind)	Pending

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
Dr Natalie Phillips	<ul style="list-style-type: none"> Dr Robyn Brady A/Prof Jason Acworth A/Prof Geoffrey Askin Dr Katie Rasmussen 	CRIC: Children's Rules for Imaging the Cervical spine	Lady Cilento Children's Hospital	\$69,930	2014-17	The team reviewed the management of cervical spine injuries in nearly 1100 children as well as the clinical characteristics of their injuries. At the time of print, the data analysis was still being completed. However, in an initial analysis they found: median age was 9.8 years; >25% under 6 years; 63.4% male; 61.9% injuries due to falls, 21.2% motor vehicle related accidents and 32% sport. Nearly 40% had neck pain and tenderness; and 44% received imaging in the ED.		Pending
Dr Philip Richardson	<ul style="list-style-type: none"> A/Prof Jaimi Greenslade A/Prof Kevin Chu Dr Jonathon Isoardi Dr Michael Davey Dr Mark Gillet Dr Alicia Tucker Ms Sharon Klim Prof Anne-Maree Kelly Dr Ibrahim Abdelmahmoud 	End of Life Issues – Withdrawal of treatment/Decision to not treat in the Emergency Department: A prospective multi-centre study	Royal Brisbane and Women's Hospital	\$50,000	2009-12	In a multisite national study, led by Queensland clinicians, it was found that better training and education is needed for emergency registrars so that the elderly are better cared for in end-of-life situations in Australian emergency departments.	\$92,800 (in-kind)	Richardson PG, Widdecombe N, Mahmoud I (2016), "End-of-Life-Issues: Withdrawal and/or Withholding of Life Sustaining Health Care: A Comparison between Emergency Physicians and Intensive Care Specialists", <i>J Emerg Med Int Care</i> 2(2): 111 Richardson PG, Greenslade J, Isoardi J, Davey M, Gillett M, Tucker A, Klim S, Kelly A, Mahmoud I (2016), "End-of-Life-Issues: Withdrawal and withholding of life-sustaining healthcare: A Comparison between Emergency Physicians and emergency registrars: A sub-study", <i>Emerg Med Australas</i> . 2016;28(6):684-690. doi: 10.1111/1742-6723.12684.

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
Project grant								
Dr Anthony Bell	<ul style="list-style-type: none"> • Dr Ian Ferguson • Dr Greg Treston • Dr Lisa New • Ms Monica Ding 	The POKEM Study: Propofol or Ketofol for Emergency Medicine Procedural Sedation – A Randomised Controlled Trial using eHealth Methodology	QE II Jubilee Hospital	\$115,075	2011-2016	<ul style="list-style-type: none"> • World's largest trial of propofol and ketofol • Researchers showed ketofol is a viable new alternative • No clinically relevant additional benefits to combining ketamine and propofol (ketofol) for procedural sedation • Ketofol doesn't cause adverse psychological reactions. • Ketofol had improved patient satisfaction by reducing post procedure pain scores. 		Ferguson I., Bell A., Treston G., New L., Ding M., Holdgate A., "Propofol or Ketofol for Precedural Sedation and Analgesia in Emergency Medicine, the POKER Study: A Randomised Double Blind Clinical Trial." <i>Annals of Emergency Medicine</i> , 2016; 68(5):574-582.e1
Prof Louise Cullen	<ul style="list-style-type: none"> • A/Prof Jaimi Greenslade • Dr Julian Williams • Prof Claire Rickard • Mr Matthew Jensen • Prof Paul Scuffham • Mr Matthew Jensen • Ms Tracey Hawkins 	The Cannulation Rates in Emergency Department Intervention Trial (CREDIT)	Royal Brisbane and Women's Hospital	\$80,000	2015-16	The research team successfully trialed an education campaign to reduce the number of catheters inserted by emergency department clinicians. The program could lead to healthcare savings as well as reduce infection rates and deaths.	<ul style="list-style-type: none"> • \$20,000 (RBWH grant) • \$42,063 (in-kind) 	Pending
A/Prof Jason Acworth	<ul style="list-style-type: none"> • A/Prof Franz Babl • A/Prof Ed Oakley • Dr Yuri Gilhotra • Dr Natalie Phillips 	The Australasian Paediatric Head Injury Rules Study (APHIRST)	Lady Cilento Children's Hospital	\$298,028	2013-17	<ul style="list-style-type: none"> • Involved 20,137 children with head injuries • Found three clinical decision rules highly accurate for identifying children at higher risk of intracranial injuries • The next step is for the group of emergency physicians to develop a national approach to optimise the management of children with head injuries 	\$1.391 million (6 grants, including an \$841,825 NHMRC grant)	Babl F.E., Borland M.L., Phillips N., Kochar A., Dalton S., McCaskill M., Cheek J.A., Gilhotra Y., Furyk, Neutze J., Lyttle M.D., Bressan S., Donath S., Molesworth C., Jachno K., Ward B., Williams A., Baylis A., Crowe L., Oakley E., Dalziel S. R., Paediatric Research in Emergency Departments International Collaborative (PREDICT), 'Accuracy of PECARN, CATCH, and CHALICE head injury decision rules in children: a prospective cohort study', <i>The Lancet</i> , 2017. doi: 10.1016/S0140-6736(17)30555-X

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
A/Prof Jeremy Furyk	<ul style="list-style-type: none"> • Prof Gerben Keijzers • Dr Carl Dux • A/Prof Kevin Chu • A/Prof Jaimi Greenslade • Dr Colin Banks • Dr Tom Torpie • Dr Rajan Narula • Dr Ogilvie Thom 	Tamsulosin for the treatment of Distal Ureteric Calculi: A Double-Blinded, Placebo-Controlled, Randomised, Multi-Centre Trial (The TaRDUS Trial)	The Townsville Hospital	\$278,782.93	2010-2016	Queensland researchers successfully trialed a prostate drug to treat large (>5mm) kidney stones. If approved for use, patients with large stones might not need more complicated treatments including surgery, which had the potential to improve care and reduce costs.	\$1,000,000 (in-kind)	<p>Furyk J.S., Chu K., Banks C., Greenslade J., Keijzers G., Thom O., Torpie T., Dux C., Narula R., "Distal Ureteric Stones and Tamsulosin: A Double-Blind, Placebo-Controlled, Randomized, Multicenter Trial", <i>Annals of Emergency Medicine</i>, 2016; 67(1):6-95.e2</p> <p>Furyk, J.S. et al., "Systematic Review: Tamsulosin in the Management of Distal Ureteric Colic", <i>Annals of Emergency Medicine</i>, 2015, 66(4): S115-S116</p>
Dr Julian Williams	<ul style="list-style-type: none"> • Dr David Paterson • Prof Graeme Nimmo • Dr Jaimi Greenslade • A/Prof Kevin Chu • Prof Jeffrey Lipman • Prof Anthony Brown 	Identifying Risk Factors for MRSA	Royal Brisbane and Women's Hospital	\$94,100	2011-16	The research team identified indicators for patients more likely to be at risk of having a community-acquired methicillin resistant Staphylococcus aureus (CA-MRSA) infection. They are hoping to develop a risk stratification tool for patients, which they hope will help emergency department clinicians identify patients at risk of CA-MRSA infection when they first present to hospital.	\$26,722 (in-kind)	Pending

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
Dr Bill Lukin	<ul style="list-style-type: none"> • Dr Xiang-Yu Hou • A/Prof David Green • A/Prof Alan O'Connor • A/Prof Kevin Chu • Ms Sam Tapp 	A comprehensive evaluation of a Hospital in Nursing Home (HiNH) Program	Royal Brisbane and Women's Hospital	\$297,846	2010-17	<ul style="list-style-type: none"> • The research team evaluated the HiNH program run by Metro North Hospital and Health Service • Found it led to 17% decrease in aged care patient presentations to the emergency department; 36 % drop in hospital admissions per emergency department presentation; overall 47% decrease in hospital admissions; an increase in capacity equating to 2.5 bed days per day; return of \$17 per \$1 annually invested in the program. 	\$76,089 (in-kind)	<p>Fan L., Hou X. Y., Zhao J., Sun J., Dingle K., Purtill R., Tapp S., Lukin B., "Hospital in the Nursing Home program reduces emergency department presentations and hospital admissions from residential aged care facilities in Queensland, Australia: a quasi-experimental study", <i>BMC Health Services Research</i>, 2016; 16:46 DOI: 10.1186/s12913-016-1275-z</p> <p>Lukin, B., Fan, L. J., Zhao, J. Z., Sun, J. D., Dingle, K., Purtill, R., Tapp, S., Hou, X.Y., "Emergency department use among patients from residential aged care facilities under a Hospital in the Nursing Home scheme in public hospitals in Queensland Australia", <i>World Journal of Emergency Medicine</i>, 2015; 7:183-90</p> <p>Fan, L., Lukin, W., Zhao, J., Sun J., Hou, X. Y., "Interventions targeting the elderly population to reduce emergency department utilisation: a literature review", <i>Emergency Medicine Journal</i>, 2015; 32:738-43</p>

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
Prof Louise Cullen	<ul style="list-style-type: none"> Prof Anthony Brown A/Prof Jaimi Greenslade Prof Peter O'Rourke A/Prof Kevin Chu Prof William Parsonage Prof Nicholas Graves Dr Martin Than 	Program of research incorporating six studies to improve the assessment and diagnosis of chest pain	Royal Brisbane and Women's Hospital	\$622,939	2010-16	<p>The team developed and trialed a new chest pain protocol (IMPACT), which allows emergency clinicians to rapidly and safely assess patients as low and intermediate risk.</p> <ul style="list-style-type: none"> Reduced the length of hospital stay for the majority of patients from 26 hours to 8 hours Physicians discharged a higher proportion of low-risk and intermediate-risk patients from the emergency department within four hours Reduced the expected cost of assessment by \$1229 per patient <p>Supported through funding from Queensland Health, IMPACT is being rolled-out across Queensland.</p>	\$127,722 (in-kind)	<p>Greenslade, J. H., Parsonage, W., Than, M., Scott, A., Aldous, S., Pickering, J. W., Hammett, C., Cullen, L., "A clinical decision rule to identify emergency department patients at low risk for acute coronary syndrome who do not need objective coronary artery disease testing: The No Objective Testing Rule." <i>Annals of Emergency Medicine</i>, 2016; 67(4):478-489</p> <p>Greenslade, J.H., Parsonage, W., Ho, A., Scott, A., Dalton, E., Hammett, C., Brown, A. F. T., Parker, K., & Cullen, L., "Utility of routine exercise stress testing among intermediate risk chest pain patients attending an emergency department." <i>Heart, Lung and Circulation</i>, 2015; 24:879-884</p> <p>Cheng, Q., Greenslade, J., Parsonage, W., Barnett, A., Bolz, K. Graves, N. Peacock, F. and Cullen, L., "Change to costs and lengths of stay in the emergency department and the Brisbane protocol: an observational study." <i>BMJ Open</i>, 2016;6:e009746</p> <p>Cullen, L., Greenslade, J.H., Carlton, E., Than, M., Pickering, J., Ho, A., Greaves, K., Berndt, S., Body, R., Ryan, K., Parsonage, W., "Sex-specific versus overall cut points for a high sensitivity troponin I assay in predicting 1-year outcomes", <i>Heart</i>, 2016; 102:120-126</p>

Principal investigator	Co-investigators	Project title	PI Institution	Amount	Grant Period	Key outcome(s)	Additional funding	Publications
A/Prof Kevin Chu	<ul style="list-style-type: none"> • Dr Jeremy Furyk • Prof Gerben Keijzers • A/Prof Carol Windsor • Dr Rob Eley • Dr Frances Kinnear • Ms Tegwen Howell • Dr Fran Kinnear • A/Prof Jaimi Greenslade • Dr Grant Eddie • Dr Greg Treston • Dr Doug Morel • Dr Joseph Ting • Dr Christopher May • Dr Shane Martin • Dr Neale Thornton • A/Prof Anthony Bell • Dr Ulrich Orda • Dr Stephen Margolis • Dr Yusuke Ueno-Dewhirst • Dr Ogilvie Thom • Dr Michael Watson • Dr Peter Pereira • Dr Katie Mills • Ms Louise Prowse • Dr Jason Linderman • Dr Corne Esterhuysen • Dr Sean Rothwell • Dr Greg Coffey • Dr Kylie Baker • Dr Ben Walters • Dr Raymond Lewandowski • Ms Elizabeth Platz • Dr Kim Nguyen • Ms Vicki Mullier 	Diagnostic workup for suspected subarachnoid haemorrhage	Royal Brisbane and Women's Hospital	\$268,600	2013-16	<p>Overall, the research team found that there were no firm clinical guidelines for identifying and managing non-traumatic headaches or SAH and clinicians were inconsistent in their approach to headache presentations and subsequent investigations.</p> <p>The team looked at 900 non-traumatic headache presentations in 847 adults over a four-week period and found that the majority of headaches were benign. However, clinicians requested CT scans for 38% of patients – a higher rate than expected. Only 3% of patients had a life-threatening condition such as SAH or bacterial meningitis.</p>		<p>Hann A., Chu K., Greenslade J., Williams J., Brown A., "Benefit of cerebrospinal fluid spectrophotometry in the assessment of CT scan negative suspects of subarachnoid haemorrhage: A diagnostic accuracy study", <i>Journal of Clinical Neuroscience</i>, 2015; 22:173-179</p> <p>Chu K., Hann A., Greenslade J., Williams J., Brown A., "Spectrophotometry or Visual Inspection to Most Reliably Detect Xanthochromia in Subarachnoid Haemorrhage: Systematic Review", <i>Annals of Emergency Medicine</i>, 2015;64:256-264</p> <p>Chu K., Bishop R., Brown A., "Spectrophotometry, not visual inspection for the detection of xanthochromia in suspected subarachnoid haemorrhage: A debate", <i>Emergency Medicine Australia</i>, 2015;27:267-272</p> <p>Chu K., Howell T., Keijzers G., Furyk J., Eley R., Kinnear F., Thom O., Mahmoud I., Brown A., "Acute Headache Presentations to the Emergency Department: A State-wide Cross-sectional Study", <i>Academic Emergency Medicine</i>, 2017;24:53-62. doi: 10.1111/acem.13062</p>

APPENDIX 6: EMF WEBSITE STATISTICS

Table A6.1: EMF website analytics (12 October 2016 – 30 June 2017)

Page views	30,294
Time on page	1:37
Sessions	14,899
Uses	11,417
Pages/session	2.03
New sessions	76.49%
Top 3 countries (Visits from 100 countries)	<ul style="list-style-type: none"> • Australia (77.46%) • US (7.8%) • UK (2.81%)

Table A6.2: Top 10 pages viewed on the EMF Website (12 October 2016 – 30 June 2017)

Page	Views
IV glue media release	4955
Homepage	4423
Apply for research grant	1217
Research symposium (homepage)	870
Board & Team	684
Research support tools	614
Research	541
Grant recipients	513
Symposium registration	499
Symposium program	485

APPENDIX 7: MEDIA COVERAGE

Date	Story	Media coverage	Interviewees
8/7/16	Will lung ultrasound replace stethoscopes and X-rays?	<ul style="list-style-type: none"> • Australian Doctor 	Dr Kylie Baker
28/9/16	Push to improve medical care for broken bones and muscle injury	<ul style="list-style-type: none"> • Channel 10 News 	Ms Kirsten Strudwick Dr Jonathan Staggs
31/10/17 to 2/11/17	Prostate drug makes it easier for men and women to pass kidney stones	<ul style="list-style-type: none"> • The Australian Financial Review • Daily Mail • Science Daily • New-Medical • Science Magazine 	A/Prof Jeremy Furyk
4/11/16	More time reduces tube risks	<ul style="list-style-type: none"> • The Courier-Mail 	A/Prof Andreas Schibler
9/11/17	Ketofol an alternative deep sedative	<ul style="list-style-type: none"> • Medicalpress • Science News Online • Bioengineer • American Pharmacists Association • Pharmacists provide care 	Dr Anthony Bell
6/12/16	Skin glue lessens IV drip pain: Australian doctors have found a way to make one of the most common medical procedures in the world - inserting drips or intravenous lines - safer, less painful and more cost effective.	<ul style="list-style-type: none"> • AAP Newswire • News.com.au • SBS online • 9 News (online) • NT News • Caboolture Shire Herald • Quest Community News (online) • Science Magazine • Science Newsline • Nursing Review • HospiMedica 	A/Prof Simon Bugden
21/3/17 & 26/4/17	Making a splash with urine sample instructions	<ul style="list-style-type: none"> • UQ News (online) • Metro South Health (online) • The Conversation 	Dr Rob Eley
10/4/17	FEISTY trial: Severe trauma patients suffering critical bleeding will soon have a better chance of survival	<ul style="list-style-type: none"> • Channel 7 News Gold Coast 	Dr James Winearls Dr Don Campbell
12/4/17	Bells Palsy trial: The little boy whose face dropped	<ul style="list-style-type: none"> • Gold Coast Bulletin • The Mercury 	Dr Shane George

Date	Story	Media coverage	Interviewees
20/4/17	Best way to diagnose head injuries in children and minimise CT scans	<ul style="list-style-type: none"> • Science Daily • Science Newsline Medicine • Contemporary Clinic 	A/Prof Jason Acworth A/Prof Franz Babl
25/4/17	New therapy for treating infants with bronchiolitis	<ul style="list-style-type: none"> • The Australian Hospital and Healthcare Bulletin 	A/Prof Andreas Schibler
29/4/17	New emergency procedure at the Lady Cilento Children's hospital is helping young patients get life-saving oxygen	<ul style="list-style-type: none"> • Channel 9 News 	Dr Fiona Thomson A/Prof Andreas Schibler
3/5/17	Qld study tests lung ultrasound on hearts/ Ipswich doctor leads revolutionary trial	<ul style="list-style-type: none"> • news.com.au • SBS online • Ipswich Times • Sunshine Coast Daily • Byron Shire News • Caboolture News • Central Queensland News • The Coffs Coast Advocate • South Burnett Times • Daily Mercury • Gympie Times • Chinchilla News • Warwick Daily News • Queensland Government (media statements) 	Dr Kylie Baker Hon Cameron Dick MP
17/5/17	Australia-first ED social work service helping domestic violence victims	<ul style="list-style-type: none"> • Sunshine Coast Daily • ABC radio • City North News • Queensland Health Minister's newsletter 	Dr Alex Markwell Hon Cameron Dick MP
26/6/17	Propofol headache trial	<ul style="list-style-type: none"> • Metro North Research Bulletin 	Dr Erik Wood

APPENDIX 8: SOCIAL MEDIA COVERAGE

Table A8.1: EMF social media impressions/page reach/page views (2016-17)

Year	Month	Twitter	Facebook	LinkedIn	Total
2016	July	1716	140	1024	2880
	August	2818	978	666	4462
	September	4027	2011	1283	7321
	October	9157	3409	1459	15,288
	November	16,800	6684	4291	31,185
	December	10,800	2244	2179	21,624
2017	January	6726	779	1334	10,765
	February	12,300	5196	5428	26,383
	March	10,900	3355	10,509	27,659
	April	11,200	11,089	5109	29,940
	May	22,500	25,445	25,132	77,484
	June	15700	1821	8448	29,530
Total		124,644	63,151	66,862	254,657

Table A8.3: EMF social media posts (2016-17)

Year	Month	Twitter	Facebook	LinkedIn	Total
2016	July	1	4	1	6
	August	5	5	4	14
	September	14	6	7	27
	October	22	15	8	45
	November	35	22	13	70
	December	19	21	5	45
2017	January	11	7	5	23
	February	21	28	12	61
	March	22	20	17	59
	April	22	20	14	56
	May	33	23	23	79
	June	26	12	8	46
Total		231	183	117	531

Table A8.2: EMF social media followers views (2016-17)

Year	Month	Twitter	Facebook	LinkedIn
2016	July	875	369	130
	August	885	399	131
	September	887	433	136
	October	917	471	138
	November	941	517	143
	December	942	568	144
2017	January	955	614	146
	February	967	637	154
	March	984	655	164
	April	998	686	171
	May	1019	758	216
	June	1048	780	223

Table A8.4: Top EMF social media posts (2016-17)

Date	Story	Impressions		
		Twitter	Facebook	LinkedIn
23/06/17	Thinking of attending the EMF #ResearchSymposium? Register before #EOFY to claim the tax deduction #EMF2017	725	328	1468
13/6/17	Our thanks to Queensland Ambulance Service Director of Finance/CFO, Scott Bryant, who has volunteered his time to join the EMF Finance Risk & Audit Committee...	217	N/A	1466
8/6/17	Emergency medicine researchers at Redcliffe Hospital recruited their first patient in a new clinical trial, which is looking at the use of propofol to treat people presenting to the emergency department with a headache.	774	306	2340
5/6/17	#LadyCilento #highflow team expand #emfgrant pilot in kids 2 multisite trial @childhealthqld @qldhealthnews @fphcare	527	2820	99
22/5/17	This new clinical trial could help improve the intubation of children in an #emergency emergencyfoundation.org.au/projects/preve ...	420	474	1446
18/5/17	EMF's @JuliaHocking helping foster #emergencymedicine #research in #Rockhampton at the 'Journal Club' with Rockhampton Hospital ED doctors	488	3499	1264
9/5/17	7 #trauma retrievals daily in #Qld, 2/3 men @emfresearch analysis of #ThisIsRSQ data @qldhealthnews @GC_Health	1887	156	1902
5/5/17	Ipswich emergency doctor leads revolutionary trial 4 diagnosing heart failure #emfgrant @qldhealthnews @qld_times qt.com.au/news/ultrasoun ...	1868	114	305
5/5/17	Less #CTscans #radiation 4 diagnosing kids' brain injuries? #clinicaltrial #emfgrant @childhealthqld @qldhealthnews	2265	18,349	543
4/5/17	The EMF Board today announced Dr Anthony Bell, Director of Emergency @#RBWH as the company's new Chair @dr_aj_b @MetroNorthHHS	1405	526	3803
3/5/17	#rural & #regional hospitals could benefit from lung ultrasound #safe, #efficient, #cheaper #heartfailure emergencyfoundation.org.au/ ...	312	N/A	1017
11/4/17	1st @GC_Health child benefits from #BellsPalsy #clinicaltrial @emfresearch grant @qldhealthnews funding #PREDICT emergencyfoundation.org.au	1157	2100	149
10/4/17	Great work @FEISTY_RCT team - exciting to see this emergency medicine work being profiled in the media #emfgrant twitter.com/7NewsGoldCoast	357	786	724
10/4/17	Managing #jellyfish #stings confusing: guidelines need revising & more research critical says expert #jamieseymour	276	4900	227
29/3/17	New research: risk of accidental #overdose increases with age, but specialist toxicology units reduce risk of death mja.com.au/journal/2017/2...	1278	321	587
12/3/17	#IpswichHospital breathing device #clinicaltrial in adults ramping up #emfgrant @wmhhs @qldhealth @kyliebaker888	448	316	1413
5/3/17	EMF extends a warm welcome to #RBWH Emergency Dept Director, Dr Anthony Bell, who has accepted a position on the EMF Board @MetroNorthHHS	551	170	1153
23/2/17	Congrats to these @emfresearch #emergencymedicine #grant recipients who received their awards yesterday from @LeanneLinard @qldhealthnews	779	430	1007
1/2/17	Great Fisher&PaykelHealthcare #docos on #emergency treatment for babies #respiratoryillness #emfgrant @qldhealthnews ...	371	4307	206
7/12/16	Skin glue lessens IV drip pain: doctors	2104	155	374
30/11/16	#emergencymedicine drs trial @CSIROnews #software: 1/2 time to treat broken bones #RBWH #EMFgrant @MetroNorthHHS	1733	52	433
28/11/16	Catch up on our #emergencymedicine #research stories & news in the latest edition of the @emfresearch #newsletter	404	2641	N/A
21/11/16	#emergencymedicine researchers successfully trial campaign to reduce catheters ED doctors use in patients #emfgrant #acem16 @MetroNorthHHS	1520	155	243
8/11/16	Trial: ketofol viable #deepsedative 4 adults in ED #EMFgrant @qldhealthnews @MetStHHealth @SWSLHD @MetroNorthHHS	1493	476	164
3/11/16	New technique reduces complications when intubating kids #EMFgrant #emergencymedicine @childhealthqld @qldhealthnews	1557	36	421
30/10/16	Prostate drug offers new relief for kidney stone sufferers #EMFgrant @TownsvilleHHS @qldhealthnews	2624	36	262
27/10/16	New research: only 1 needle needed to numb finger injuries #emergencymedicine #EMFgrant @qldhealthnews @IpswichHosp	2007	504	219
13/9/16	Townville Research Week: S. Montgomery presents on kid's head injury study co-funded by EMF @TownsvilleHHS @jcu	1924	N/A	N/A
10/7/16	ED researchers at Ipswich Hospital launch new Breathe Easy Early Study (BEES) funded by \$159k EMF grant	767	10	1026

APPENDIX 9: EMF RESEARCH NEWSLETTER STATISTICS

Newsletter edition	Recipients	Unique opens	Total opens	% Recipients who opened the newsletter
November, 2016	963	384	2396	41.5%
February, 2017	996	402	2067	41.2%
May, 2017	1179	423	1679	37.0%

APPENDIX 10: EMF BOARD, COMMITTEES AND PANELS

EMF BOARD MEMBERS AND MEETING ATTENDANCE

Table A10.1: Board members and attendance

Name	22/7/16	19/10/16	15/11/6	22/2/17	3/5/17	Total
Chair: Dr Anthony Bell					Y	1/1
Retiring chair: A/Prof Sally McCarthy	Y	A	Y	Y		3/4
Dr Peter Isdale AM	Y	Y	Y	Y	Y	5/5
Dr Michael Sinnott	Y	Y	Y	Y	Y	5/5
Dr David Spain	Y	Y	Y	Y	Y	5/5
A/Prof Ed Oakley	Y	Y	Y	Y	Y	5/5
Dr John Wakefield PSM	Y	A	A	Y	Y	3/5
Mr Jason Currie	Y	Y	Y	Y	Y	5/5

Key: Y – In attendance; A – Not in attendance, apology received prior to meeting

 Not a member at this time

FINANCE, RISK AND AUDIT COMMITTEE: ROLE AND RESPONSIBILITIES

The Finance, Risk and Audit Committee provide an oversight of the integrity of the EMF's statutory financial reports and statements. It also monitors EMF to ensure an appropriate framework is in place to identify and manage risk and ensures that EMF is complying with regulatory, prudential, legal and ethical standards. The Committee is responsible for reviewing EMF's compliance with all internal guidelines, policies and procedures. However, overall responsibility for risk oversight and management rests with the full board. The Committee is made up of EMF Board Directors and external volunteers, who are listed in Table A10.2. In 2017, EMF welcomed Queensland Ambulance Service Director of Finance/CFO, Scott Bryant, to the FRAC.

Download the Committee's Terms of Reference: http://emergencyfoundation.org.au/wordpress/wp-content/uploads/2017/05/FRAC_Terms-of-reference_updated-EMF_April-2017.pdf

ROLE AND RESPONSIBILITIES

The purpose of this Committee is to provide strategic advice to the EMF Board on scientific matters for the EMF. It also audits research matters referred by EMF as well as complaints made to EMF and oversees an annual audit of EMF grant administration processes. The members of this Committee and their attendance at meetings in 2016-17 are outlined in Table A10.3.

Download the Committee's Terms of Reference: <http://emergencyfoundation.org.au/wordpress/wp-content/uploads/2017/10/EMF-SAC-ToR-reviewed-Oct-2017.pdf>

Table A10.2: Finance, Risk and Audit Committee members and attendance

Name	9/9/16	8/11/16	15/2/17	19/4/17	13/6/17	Total
Chair: Mr Jason Currie BSc, LLB, MIP, GCPA	Y	Y	Y	Y	Y	5/5
Mr Paul Monaghan FCPA	Y	Y	Y	Y	Y	5/5
Ms Susanne Le Boutillier BA, GDIR Bus, GradCert Bus, GAICD	Y	Y	Y	Y	Y	5/5
Mr Scott Bryant BBus, CPA					Y	1/1
Ms Beth Chapman BBus, CPA	Y	Y	Y	Y	Y	5/5

Key: Y – In attendance; N – Not in attendance; A – Apology received prior to meeting

Not a member at this time

SCIENTIFIC ADVISORY COMMITTEE:

Table A10.3: Scientific Advisory Committee members and attendance

Name	16/8/16	13/10/16	1/12/16	9/3/17	18/5/17	Total
Chair: Dr Ogilvie Thom MBBS, FACEM	Y	Y	Y	A	Y	4/5
Retiring Chair: Prof Gerben Keijzers MBBS, PhD, MSc(Epi), FACEM	Y	Y				2/2
A/Prof Diann Eley BSc, MSc, PhD	A	Y	Y	Y	Y	4/5
Prof Daniel Fatovich MBBS, PhD, FACEM	A	Y	A	Y	Y	3/5
A/Prof Ed Oakley MBBA, FACEM	A	A	Y	Y	A	2/5
Prof Marianne Wallis RN, BSc (Hons), FRCNA, PhD	Y	Y	A	Y	Y	4/5
Dr Ellen Burkett MBBS, FACEM			Y	A	Y	2/3
Dr Amith Shetty MBBS, FACEM				Y	A	1/2
Ms Lisa van den Berg BSc MSc (Hons)	A	A	A	Y	A	1/2
Dr Jonathan Staggs BA Pol Sci (Hons), MBA, PhD	Y	Y	Y	Y	Y	5/5

Key: Y – In attendance; A – Not in attendance, apology received prior to meeting

Not a member at this time

STRATEGIC GRANTS COMMITTEE: ROLE AND RESPONSIBILITIES

The Strategic Grants Committee reviews the Research Evaluation Panel scores and makes recommendations for research grant applications and delivers a set of final recommendations to the EMF Board of Directors. The Committee's advice is based on strategic direction and expected impact, with close consideration, for the Queensland Research Program, of current Queensland Science and Research Priorities. This Committee only meets following a grant round. Attendance in 2016-17 and the list of Committee members are outlined in Table A10.4.

Download the Committee's Terms of Reference: http://emergencyfoundation.org.au/wordpress/wp-content/uploads/2016/10/SGC_Terms-of-reference_updated-EMF_June-2016.pdf

Table A10.4: Strategic Grants Committee members and attendance

Name	14/7/16	10/11/16	Total
Chair: Ms Jane Schmitt LLB, LLM, GAICD	Y	A	1/2
Dr Peter Isdale AM PhD, B.A (Hons), MAICD(REP Chair and EMF Board Representative)	Y	Y (Acting Chair)	2/2
Professor Gerry FitzGerald MD, FACEM, FRACMA, FCHSM	Y	Y	2/2
Dr David Rosengren* MBBS, FACEM	Y	Y	2/2
Dr Andrew Spiller** BSc, MBBS(Hons), FRACGP, FACEM			

Key: Y – In attendance; A – Not in attendance, apology received prior to meeting

 Not a member at this time

*Dr David Rosengren resigned from the Committee in April 2017.

**Dr Spiller joined the Committee in June 2017.

RESEARCH EVALUATION PANEL: ROLE AND RESPONSIBILITIES

The Research Evaluation Panel has responsibility for reviewing applications for scientific merit and other scoring criteria. This panel consists of external expert reviewers who are able to comment on the application. The Panel is comprised of the Chair and numerous appropriately qualified reviewers selected bi-annually from a pool of expert reviewers. EMF strives to enrol from a balanced panel of reviewers who are experts in their fields, whether they are based in Australia or overseas. The Foundation also aims, where possible, to have each application assessed by three independent expert reviewers consisting of a subject field expert, a relevant research methodology expert and an Emergency Medicine specialist to assess the contribution of the proposal to the field.

The 41 members of the Panel in 2016-17 are listed in Table A10.5.

Download the Panel's Terms of Reference: http://emergencyfoundation.org.au/wordpress/wp-content/uploads/2016/10/REP_Terms-of-reference_updated-EMF_June-2016.pdf

Table A10.5: Research Evaluation Panel members (2016-17)

Name	Qualifications	Position
Dr Peter Isdale AM (Chair)	PhD, BA (Hons). MAICD	Managing Director of Intergyre Pty Ltd; Chair of The Wetlands and Grasslands Foundation, Ecoreps Pty Ltd and ReefCSI.org
Dr Kylie Baker	MBBS FACEM	Senior Medical Officer, Ipswich Emergency Department; Co-Director of Emergency Medicine Training (Ipswich Hospital), ACEM; Senior Lecturer, School of Medicine, The University of Queensland
Prof Michael Bennett	MB BS (UNSW), DA (Lond), MM (Clin Epi) (Syd), FFARCSI (Dublin), FANZCA, MD (UNSW), ANZCA(Cert. DHM)	Conjoint Professor, Prince of Wales Clinical School, Faculty of Medicine, University of New South Wales
Dr Daniel Bodnar	BSc, MBBS, FACEM	Emergency Medicine Staff Specialist, RBWH; A/Medical Director, Queensland Ambulance Service
Dr Maree Boyle	BA (Hons 1), PhD	Program Leader (Business) College of Leadership and Business, Australian Institute of Professional Counsellors
Dr Janet Bray	PhD, GDipAppSci(AppStats), GCert(ResearchMeth), PGDip(CritCare), GDipAppSci(Nurs)	Senior Research Fellow/Heart Foundation Fellow, Monash University; Associate Director of NHMRC Centre of Research, Australian Resuscitation Outcomes Consortium, Monash University; Adjunct A/Prof Curtin University
Prof Simon G.A. Brown	BMedSci, MBBS, DA(UK), FACEM, PhD	Staff Specialist in Emergency Medicine, Royal Hobart Hospital and Clinical Professor, UTAS; Principal Research Fellow (Emergency Medicine), UWA
Dr Pauline Calleja	RN, FCENA, MACN, Dip Management, BNSc, MANP, PhD	Lecturer, Program Director - Emergency Nursing Programs, School of Nursing and Midwifery, Griffith University
Dr Don Campbell	MBBS (Hons), M MedSci, MD, FRACP	Senior Staff Specialist Emergency Department, Gold Coast Health District
A/Prof Kevin Chu	MBBS, GCBiostat, MS, FACEM	Director of Emergency Medicine Research and Senior Staff Specialist, Emergency and Trauma Centre, RBWH
Prof Julie Considine	RN, RM, BN, CertAcuteCareNurs(Emerg), GDipNurs(AcuteCare), MN, PhD, GradCertHigherEd, FACN	Chair in Nursing Eastern Health, School of Nursing and Midwifery, Faculty of Health, Deakin University
Prof Julia Crilly	BN, MN (Emerg) (Hons), PhD	Professor, Emergency Care, Griffith University and Gold Coast Hospital & Health Service
Prof Kate Curtis	RN, BN, MN, PhD (UNSW), GradDipCritCare Sydney	Professor and Principle Research Fellow, Sydney Nursing School, The University of Sydney; Honorary Professorial Fellow, The George Institute for Global Health; Clinical Nurse Consultant-Emergency, Illawarra Shoalhaven Local Health District
Dr Rob Eley	BSc MSc PhD CSci CBiol FRSB	Academic Research Manager, Princess Alexandra Hospital; Southside Clinical Unit and Director (Research Training), Research Strategy and Support (Medicine), Faculty of Medicine, The University of Queensland
Prof Mark Fitzgerald ASM	MBBS, MD FACEM, AFRACMA, GCSRP	Director, National Trauma Research Institute; Director, Trauma Services, The Alfred; Professor, Faculty of Medicine, Nursing and Health Science, Monash University; Professor, Faculty of Science, Engineering and Technology, Swinburne University of Technology
A/Prof Richard Franklin	PhD, MSocSc, BSc, FPHAA, FARL, GCertAustRurLeadership, MACTM	Associate Professor, College of Public Health, Medical & Veterinary Sciences, James Cook University; Senior Research Fellow, Royal Life Saving Society-Australia; Director, World Safety Organization-Collaborating Centre for Injury Prevention and Safety Promotion
Dr Riesa Ginsberg	MBBS FACEM	Emergency Department Staff Specialist, Redcliffe Hospital
Dr Janice Gullick	RN, BFA MArt UNSW PhD	Director, Postgraduate Advanced Studies, Senior Lecturer Critical Care, Coordinator of Emergency Nursing and Intensive Care Nursing, The University of Sydney

Dr Samantha Hollingworth	MPH, PhD, BSc(Hons)	Senior Lecturer, School of Pharmacy, Pharmacy Australia Centre of Excellence, UQ
Dr Catherine Hurn	MBBS, FACEM	Senior Lecturer, Royal Brisbane Clinical Unit, The University of Queensland; Emergency Senior Staff Specialist RBWH
Dr Amy Johnston	BSc (Hons), PhD, Grad Dip Adult Ed, MEd, BN	Conjoint Research Fellow, Griffith University and Gold Coast Hospital & Health Service, Emergency Care
Dr Susan Jordan	MBBS, DRANZCOG, FRACGP, Grad Dip Clinical Epidemiology, PhD	Senior Research Fellow and Team Head, NHMRC Career Development Fellowship, QIMR Berghofer; Adjunct Fellow, The School of Population Health, The University of Queensland
Dr Frances Kinnear	BSc Hons, MBChB, PhD, FACEM	Emergency Specialist & Head of Research, Emergency Medicine & Children's Services, The Prince Charles Hospital
Dr David Lim	DrPH, Grad Cert in Academic Practice	Senior Lecturer, Rural Interprofessional Education Team Leader, Flinders University
Dr Grainne Lowe	RN, NP, PhD	Lecturer, School of Nursing and Midwifery, Deakin University; President, Australian College of Nurse Practitioners
Dr Judy Lowthian	PhD, MPH, BAppSc (SpPath), LMusA	Principal Research Fellow, Bolton Clarke Institute; Senior Research Fellow, School of Public Health & Preventive Medicine, Monash University
A/Prof Stephen Macdonald	BSc(Hons), MBChB Edin, DipCH, MRCP, MRCGP, FACEM FRCP	Senior Lecturer in Emergency Medicine, University of Western Australia; Emergency Physician, Royal Perth Hospital Centre for Clinical Research in Emergency Medicine, Harry Perkins Institute of Medical Research Emergency Department
Prof Stephen Margolis	MBBS, MFM MD GEM DRANZCOG FRACGP FACRRM	Senior Staff Specialist, Emergency Department, Logan Hospital; Professor, School of Medicine, Griffith University; Aeromedical Retrieval Medical Officer, Royal Flying Doctor Service, Queensland
Dr Doug Morel	MBBS, FACEM, FACHSM	Director, Redcliffe Hospital Emergency Department; A/Prof Emergency and Disaster Management, School of Public Health and Social Work, Queensland University of Technology; Fellow of the Centre for Emergency and Disaster Management, Faculty of Health, Queensland University of Technology
Dr Son Nghiem	PhD	Senior Research Fellow, Australian Centre for Health Service Innovation, Queensland University of Technology
Dr Siegfried Perez	MD, FACEM	Director of Research, Logan Hospital; Emergency Department Staff Specialist, Logan Hospital
Dr Stephen Priestley	MBBS, FACEM	Emergency Department Senior Staff Specialist, Sunshine Coast University Hospital
Dr Stephen Rashford ASM	MBBS, FACEM	Medical Director, Queensland Ambulance Service
Dr Mark Scott	MBBS (Hons), FACEM	Senior Staff Specialist, Emergency Department, Caboolture Hospital
Dr Amith Shetty	MBBS, FACEM	Director Westmead Emergency Medical Research Unit, Westmead Hospital; Emergency Department Staff Specialist, Western Sydney Local Health District; Clinical Senior Lecturer, Westmead Clinical School and Honorary Research Fellow, NHMRC Centre for Research Excellence in Critical Infection, The University of Sydney
Dr Lahn Straney	PhD, GCert Science (Statistics), BBiotech Innov (Hons I), MBiostatistics(Enrolled)	Research Fellow, Australian Resuscitation Outcomes Consortium, Monash University
Dr Michelle Sumner	MBBS	Emergency Physician, Sunshine Coast Hospital and Health Service
Prof Vivienne Tippett	BA, Grad.Dip.Psych, MPH, PhD	Head of Discipline for Paramedicine, Faculty of Health and Director of Research, School of Clinical Science, QUT
Dr Erika Turkstra	BSc, MSc, PhD	Consultant – Pricing and Market Access, PAREXEL [A/Prof, Griffith University until October 2016]
Dr Teresa Williams	PhD, M Hlth Sci(Res), PG Dip Clin Epi, BN, ICU Cert, RN	Senior Research Fellow, School of Nursing, Midwifery and Paramedicine, Faculty of Health Sciences, Curtin University
Prof Patricia Yates	PhD, MSocSc, BA, DipAppSc FACN FAAN	Head, School of Nursing, Queensland University of Technology; Director, Centre for Palliative Care Research and Education, Queensland Health.

GLOSSARY

A

ABN	Australian Business Number
ACN	Australian Company Number
ACS	Acute Coronary Syndromes
ADAPT	Accelerated Diagnostic Protocol
AM	Order of Australia, Member of the Order
AMA	Australian Medical Association
AIHW	Australian Institute of Health and Welfare
A/Prof	Associate Professor
ACEM Medicine	Australasian College of Emergency

B

BA	Bachelor of Arts
BA Pol Sci	Bachelor of Arts, Political Science
BAppSc	Bachelor of Applied Science
BBehSc	Bachelor of Behavioural Science
BEcon	Bachelor of Economics
BHlthSc	Bachelor of Health Science
BPsych	Bachelor of Psychology
BSc	Bachelor of Science
BScAgr	Bachelor of Science, Agriculture
BBus	Bachelor of Business

C

CBio	Chartered Biologist, Royal Society of Biology
CPA	Certified Practising Accountant
CRE	Centres of Research Excellence
CSIRO	Commonwealth Scientific Research Organisation

CSci	Chartered Scientist, Royal Society of Biology
CSE	Convulsive status epilepticus
CT scan	Computed Tomography

D

DCH	Doctor of Surgery
DGR	Deductible Gift Recipient (Australian tax exemption)
DipAppSc	Diploma Applied Science
DPhil	Doctor of Philosophy
Dr	Doctor
DTM&H	Diploma in Tropical Medicine & Hygiene

E

ED	Emergency Department
EMDM	European Master in Disaster Medicine
EMF	Emergency Medicine Foundation

F

FACEM	Fellow of the Australasian College of Emergency Medicine
FACRRM	Fellow of the Australian College of Rural and Remote Medicine
FEISTY	Fibrinogen Early In Severe Trauma study
FRAC	Finance, Risk and Audit Committee
FRACGP	Fellow of the Royal Australian College of General Practitioners
FRACMA	Fellow of the Royal Australasian College of Medical Administrators
FACTM	Fellow of the Australian College of Tropical Medicine

FTE	Full time equivalent
FSB	Fellow of the Society of Biology

G

GAICD	Graduate of the Australian Institute of Company Directors
GCPA	Graduate of CPA Australia
GCUH	Gold Coast University Hospital
GDIR	Graduate Diploma of Business in Industrial Relations
GCert	Graduate Certificate
GCBiostat	Graduate Certificate, Biostatistics
GradCert Bus	Graduate Certificate Business
GradDip Adult Ed	Graduate Diploma Adult Education
GDipCBL	Graduate Diploma Case Based Learning
GradDipNursing	Graduate Diploma Nursing

H

HHS	Hospital and Health Service
HiNH	Hospital in Nursing Home program
Hons	Honours

I

IMPACT	IMProved Assessment of ChesT pain protocol
IV	Intravenous

J

JCU	James Cook University
-----	-----------------------

L

LCCH	Lady Cilento Children's Hospital
LLB	Bachelor of Laws
LLM	Master of Laws

M

MAICD	Member of the Australian Institute of Company Directors
MBA	Master of Business Administration
MBBS	Bachelor of Medicine, Bachelor of Surgery
MBChB	Bachelor of Medicine, Bachelor of Surgery
MClinEd	Master of Clinical Education
MD	Doctor of Medicine
MEcSt	Master of Economic Studies
MEd	Master of Education
MHlthSc	Master of Health Science
MIP	Master of Intellectual Property Law
MMed	Master of Medicine
MOrgPsych	Master of Organisational Psychology
MPH	Master of Public Health
MRCGP	Member of the Royal College of General Practitioners (UK)
MPH&TM	Master of Public Health and Tropical Medicine
MRCP (US)	Member of the Royal College of Physicians
MRFF	Medical Research Future Fund
MRCGP	Member of the Royal College of General Practitioners
MSc	Master of Science
MScCT	Master of Science – Clinical Trials
MSocSc	Master of Social Science

N

NHF	Nasal High Flow
NHMRC	National Health & Medical Research Council

P

PAH	Princess Alexandra Hospital
PAPT	Patient Admission Prediction Tool
PGradDip J	Postgraduate Diploma, Journalism
PhD	Doctor of Philosophy
PHNs	Primary Health Networks (Australia Government Department of Health)
PIVC	Peripherally inserted intravenous cannula
POCT	Point-of-care-testing
PREDICT	Paediatric Research in Emergency Departments International Collaborative
Prof	Professor
Psych	Psychology

Q

QAS	Queensland Ambulance Service
QEMRF	Queensland Emergency Medicine Research Foundation
QERC	Queensland Emergency Research Collaborative
QIMR	Queensland Institute of Medical Research
QLD	Queensland
QPS	Queensland Police Service
QTC	Queensland Treasury Corporation
QUT	Queensland University of Technology

R

RBWH	Royal Brisbane and Women's Hospital
RDM	Research Development Manager
REFRESH	REstricted Fluid REsuscitation in Sepsis-associated Hypotension
REP	Research Evaluation Panel
RN	Registered Nurse
RSN	Research Support Network
RSQ	Retrieval Services Queensland

S

SAC	Scientific Advisory Committee
SGC	Strategic Grants Committee
SCUH	Sunshine Coast University Hospital

U

UQ	The University of Queensland
UK	United Kingdom
US/USA	United States of America
UTAS	University of Tasmania
UWA	University of Western Australia

W

WHA	World Health Assembly
WHO	World Health Organization

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SHOULD WE CHANGE THE WAY WE TREAT SEPSIS?

For more than 50 years, clinicians have treated patients suffering from severe sepsis (septic shock) with large volumes of intravenous fluids, otherwise known as a fluid bolus.

The belief was that the fluid bolus would increase the heart's pumping mechanism and deliver a better blood flow to important organs.

However, the clinical evidence to support this treatment is limited.

In a recent landmark clinical trial in Africa (the FEAST study, led by Professor Kathryn Maitland from Imperial College London) the research team stopped their large-scale trial early because they found that the children with septic shock who were treated with fluid boluses were dying at a greater rate.

In Australia, EMF is co-funding two trials looking at fluid boluses in the treatment of septic shock.

In 2016-17, EMF awarded a \$77,233 grant to the Royal Brisbane and Women's Hospital emergency medicine specialist Professor Louise Cullen to extend research into the use of fluid boluses in a laboratory model of sepsis.

Professor Cullen's research is part of a larger, NHMRC-funded project led by The Prince Charles Hospital intensive care specialist Professor John Fraser and of which Professor Maitland is a co-investigator.

EMF is also funding the Queensland arm of the 'REstricted Fluid RESuscitation in Sepsis-related Hypotension' or REFRESH clinical trial.

In this multicentre pilot trial, the researchers are comparing patient outcomes from conventional fluid treatment and restricted fluids.

Associate Professor Stephen Macdonald is leading this study, with Professor Gerben Keijzers heading up the Queensland arm of the trial. As of June 30 2017, 44 participants were enrolled in the trial.

WHAT IS SEPSIS?

Sepsis kills more Australians each year than breast cancer and prostate cancer combined.

Up to 20,000 people worldwide die from this deadly disease each day.

Also known as blood poisoning, sepsis is a life-threatening condition that can develop when the body is fighting an infection.

In 2017, the World Health Assembly (WHA) – the decision-making body of the World Health Organization (WHO) – made the disease a global health priority.

CONGRATULATIONS TO THE 100 RESEARCHERS INVOLVED IN THE 20 PROJECTS AWARDED EMF GRANTS IN 2016-17

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Mark Edwards

Kristin Edwards

Mark Elcock

Kelly Foster

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Jeremy Furyk

Vinay Gangathimmaiah

Shane George

Vanessa Grayson

Jane Hancock

David Herd

Louise See Ho

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Catherine Hurn

Randy Bindra

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Shane Martin

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Peter Miller

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Ed Oakley

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Ulrich Orda

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Champika Pattullo

Richard Pellatt

Neal Pollock

Jeffrey Presneill

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Kym Roberts

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Glenn Ryan

Rina Savage

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Kiran Shekar

Scott Simpson

Mark Scott

Megan Shuttleworth

Martin Smith

Simon Smith

Stephen Smith

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