

AGEING CLINICAL AND EXPERIMENTAL RESEARCH TEAM

DEPARTMENT OF MEDICINE FOR THE ELDERLY

ANNUAL
REPORT
2021



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We welcome engagement from potential donors who are considering supporting specific piece of ageing related research which falls within the remit of ACER objectives. If you wish to donate to support our research and have any questions regarding how this may help to deliver our objectives, please do not hesitate to contact Professor Phyo Myint

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FOREWORD

Much has been said and written about the resilience of people during the covid pandemic. It gives me great pleasure to introduce the latest ACER Report that is a testament, not just to our group's resilience, but to its ability to thrive under any circumstance. It has been another unusual year with everyone continuing to adapt to remote ways of working, but with a most welcome return to more face to face work. With much of the usual work of the group paused, we found new ways to deliver on our mission to promote the health and wellbeing of older people through our research. This required innovation and new ways of working, as well as directly responding to the new challenges posed by the pandemic. We devoted much of our work to researching covid without losing sight of our pre-pandemic priorities. This year, perhaps more than any other in history, has shown the power of clinical research. Within a year of the discovery of a new deadly disease spread by the SARS CoV2 virus, life-saving treatments and vaccines were developed and put into clinical use. I am very proud of the role members of our group played in this historic endeavour. I am equally proud of all our other work and achievements that you will read about in this report. However, we cannot rest on our laurels as there is yet much to do. The NHS is under more and more pressure, such that it is more important than ever to work to improve our practice in promoting health and delivering care into old age. For me, one of ACER's greatest achievements is the work to develop the clinical academics of the future. I congratulate all our colleagues in their successes and hope we can build on this together in the coming years.



Dr Roy Soiza

ACER Academic co-Lead and Honorary Clinical Reader

ACKNOWLEDGEMENT

Special thanks our collaborators/co-supervisors of ACER PhD students, Emeritus Professor Christine Bond, Dr Moira Cruickshank, Dr Rumana Newlands, Dr Amudha Poobalan, and co-supervisors of Masters and BSc (Hons.) projects, Professor Alex Johnstone, Dr Sohinee Bhattacharya, Dr Ben Carter.

We are also grateful for the administrative support provided by Mrs Morag McConnell and Miss Kelly Gray, Mr Craig Lee from Media Services - Medical Illustration, and Dr Carrie Stewart for her continued contribution to ACER as ACER PPI Lead. We also gratefully acknowledge the contribution of one of our medical students, Miss Sarah Perrott who volunteered as co-ordinator of ACER PPI group.

We are also indebted to our ACER PPI team members for their valuable contribution to our research ideas, draft proposals, as well as being PPI co-applicant members and PPI steering committee members for our ongoing work.

Last but not the least, on behalf of ACER team, we thank our collaborators globally as well as participants of our research studies, without whom we will not have achieved our primary function of carrying out research which is relevant and important for older people.



Professor Phyo Kyaw Myint
Academic Lead, ACER Team

LOOKING BACK 2021

During 2021, the University teaching and research activities remained mainly online till autumn where hybrid working resumed. There was resumption of international travels which has helped our visiting research scholars like Sam (Dr Kandage Vijewardane) to arrive to Aberdeen. Selva attended the Winter Graduation Ceremonies which was first face to face graduation ceremony since the beginning of the COVID-19 pandemic.

For the first time, ACER Summer Research Scholarships were supervised remotely via teams. Special thanks to Carrie, Tiberiu, Zahra, Sarah and Weronika for their co-supervision of several summer research projects. As part of the National INSPIRE Scholarship Programme, funded by the Academy of Medical Sciences, we hosted Kyi Lae Shune Kyaw, from University of Edinburgh. The supervision of research projects remotely was

indeed challenging but we have delivered high quality supervision evident by 3 out of 6 award winners for Summer Research Scholarship Symposiums were from ACER team (congratulations Sona, Rosa and Monika). Both Aberdeen based PhD candidates Toney and Loulwah made excellent progress. Toney completed his work in September and returned to Thailand for last 6 months writing time. Loulwah successfully gained ethics approval in timely fashioned and return to Kuwait in late 2021 for data collection which is going well at the time of writing this report. Bolanle relocated to Sussex as Lecturer in Nursing but we are pleased that she will continue her NRS Clinical Fellowship with us and obtained relevant approvals from NRS as well as from her new employer, the University of Sussex. Overall, despite ongoing challenges in both NHS and University fronts, ACER team members have demonstrated incredible resilience, talent and hard work.



WELCOME



Dr Kandage
Vijewardane (Sam)

Visiting Public Health Nutrition Research Fellow

We welcome Sam (Dr Kandage D S C Vijewardane) who is a Public Health consultant and Post MD fellow from Sri-Lanka. She is funded by the Postgraduate Institute of Medicine. She joined ACER as the Visiting Public Health Nutrition Research Fellow in May 2021. She is currently working on papers based on her MD thesis work, under supervision of Phyto and Professor Alex Johnstone from the Rowett Institute.



Dr Selvarani Subbarayan

Honorary Post-Doctoral Research Fellow

As a freshly graduated PhD, Selva joined the group as an Honorary Research Fellow. We hope to continue to work with Selva on various research projects in the future including input from Selva in supervising and mentoring of future ACER research students.



Dr Fiona McLachlan

Honorary Clinical Research Fellow

Congratulations to Fiona who has been appointed as Early Career Academic Trainee with University of Aberdeen. She is currently doing Masters in Epidemiology with the University of Edinburgh and her key research interest is in cardiovascular diseases.



Dr Tiberiu Pana

Honorary Clinical Research Fellow

We welcome Tiberiu in his new role as Honorary Clinical Research Fellow as an Academic Foundation Programme Doctor in North of Scotland Region, Scotland Deanery.

GOODBYE

Toney (Athagran Nakham)

Toney returned to Thailand on 24th September – he will work remotely from Thailand to complete the follow up phase of REGENRATE Feasibility Study and spend time to write up PhD for submission in September 2022.

We will miss his presence and his Thai chicken curry!

Toney celebrated his time in Aberdeen on 21st September with his PhD supervisors and Valerie, Practice Senior Pharmacist, who contributed to his feasibility work @ Marcliffe Hotel.



Toney's Leaving Lunch at Marcliffe Hotel | From Left to right:

Phyo, Christine Bond, Toney, Moira Cruickshank, Valerie Sillito and Rumana Newlands.



PATIENT & PUBLIC INVOLVEMENT IN RESEARCH TEAM

As a result of public interest in our work following several public engagement events in Aberdeen (May Festival, May 2019, Techfest, September 2019, and Café Med, Oct 2019) we formed the ACER PPI group. We held our first meeting on the 31st of October 2019 which was very well attended. We presently have 18 members, some of whom participate remotely as they live further afield. We aim to host four meetings each year (approximately every 3 months). Throughout the Covid-19 pandemic we have continued to meet virtually on Zoom and will do so until we can safely meet face to face again. We are currently funded by The Morningfield Association to allow us to reimburse members travel and provide a light lunch and refreshments at our meetings.

Our goal is to develop and maintain a group of members of the public, patients and their carers who are interested in the health and wellbeing of older people to promote research which can improve the quality of life of older persons.

A significant development in 2021 was the launch of the group to public via ACER website.

Information about ACER PPI group can be found at <https://www.abdn.ac.uk/iahs/research/acer/acer-patient-and-public-involvement-group-1971.php>

Some achievements of ACER PPI are worth highlighting.

Our PPI group have developed a flyer and a short, animated video (links below) to explain the importance of this and encouraging you to ask questions about your medications.

Anticholinergic Medicines Video with subtitles
<https://www.youtube.com/watch?v=3QcHKqQpr9E>

<https://www.abdn.ac.uk/iahs/content-images/Anticholinergic%20Medications%20Leaflet.pdf>



AWARDS & GRANTS

Grant

Early detection of Alzheimer's disease with glucoCEST MRI: a feasibility study (DREAMER).

Dr Gordon Waiter, Professor Phyo K Myint (named RF: Dr Vasiliki Milikourti).

Funding organisation: Chief Scientist Office

Amount: £260,978 (over 2 years)

Awards and Prizes

Congratulations to all ACER summer scholarship students (listed below) and many congratulations to Sona, Rosa and Monika for winning best presenter prizes at Summer Research Scholarship Symposium (online event) in November 2021.



Sona Jesenakova

Rosa Thuemmler

Monika Mikalauskaite

LIST OF SUMMER RESEARCH SCHOLARSHIP STUDENTS 2021

Matthew Ward

Funded by Institute of Applied Health Sciences

Supervisors: Phyo Myint, Amanda Lee, Weronika Agnieszka Szlachetka, Manimekalai Kesavan Thiruvothiur

Mansi Tolia

Leslie Wilson Scholarship

Supervisors: Roy Soiza, Carrie Stewart, Phyo Myint

Euan Ramsay

Gwyn Seymour Scholarship

Supervisors: Phyo Myint, Ben Carter (King's College London), Jonathan Hewitt (Cardiff University)

Fiona Craigen

Leslie Wilson Scholarship

Supervisors: Phyo Myint, Tiberiu Pana

Ali Malik

Gwyn Seymour Scholarship

Supervisors: Phyo Myint, Kathryn Martin, Sarah Perrott

Jiabei (Helena) Yu

INSPIRE Scholarship

Supervisors: Phyo Myint, Zahra Pasdar, Kathryn Martin

Manisha Patel

INSPIRE Scholarship

Supervisors: Phyo Myint, Stavroula Lila Kastora

Sona Jesenakova

INSPIRE Scholarship

Supervisors: Phyo Myint, Tiberiu Pana

Monika Mikalauskaite

INSPIRE Scholarship

Supervisors: Phyo Myint, Alex Johnstone

Rosa Thuemmler

INSPIRE Scholarship

Supervisors: Phyo Myint, Amudha

Poobalan, Tiberiu Pana

Nooreen Akhtar

Innes Will Scholarship

Supervisors: Carrie Stewart, Roy Soiza,

Phyo Myint

Ribeya Mahmood

Innes Will Scholarship

Supervisors: Phyo Myint, Tiberiu Pana,

Ben Carter

Yusuf Sarwar

Funded by Exeter Medical School

Supervisors: Phyo Myint, Stavroula Lila

Kastora

Kyi Lae Shune Kyaw

INSPIRE National Scholarship

Supervisors: Phyo Myint, Tiberiu Pana

We would like to thank all internal and external supervisors who supported these summer research scholarship students.

CONFERENCE PRIZES

**Panayiotis Tanos**

Congratulations to Panos who won best e-poster prize at the European Society of Gynaecological Endoscopy ESGE 30th Annual Conference 3-5 Oct Rome, Italy

SHARP risk score: a predictor of poor outcomes in adults admitted for emergency general surgery; a prospective cohort study.

**Dr Roy Marzo**

PhD Candidate

Congratulations Roy for being selected as one of the 4 best papers by The Emerald Publishing and won Emerald SDG Research Impact 2021 for his work on “Association of Active Ageing and Quality of Life Among Older Adults: Systematic Review” in the 2nd World Conference on Public Health 2021.

**Nurul Nabilah Akmal Hashim**

PhD Candidate

Congratulations to Nabilan who won the best poster prize for “Circulating Interleukin-6 in Falls Among Older Adults with Obesity” at the Malaysian Congress of Geriatric Medicine-Asia Pacific Geriatric Conference joint meeting, Malaysia. 19 to 21 August 2021.

RESEARCH

Completed studies

ARMED Evaluation

ARMED (HAS Technology, Lichfield, UK) is a falls prevention technology that combines a wrist-worn activity tracker with predictive analytics and machine learning to enable early intervention. Data from the tracker is augmented by weekly grip strength and body composition measurements. ARMED-in-a-box is a streamlined version of ARMED that does not use the grip strength or body composition measures, rolled-out in response to the COVID-19 pandemic. This independent evaluation was commissioned by the Digital Health and Care Innovation Centre and conducted by an interdisciplinary team led by Professor Kay Cooper from Robert Gordon University, ACER (the University of Aberdeen), and NHS Grampian. The purpose of the evaluation was to inform the potential for scalability of ARMED within the Scottish digital health and care context, and specifically to analyse and appraise the effectiveness of the current ARMED service and business models, aligning with the national technology enabled care (TEC) programme's existing test of change (TOC) activity.

The full report and recommendations including policy and future evaluation can be found here:

<https://www.dhi-scotland.com/learning/resources/independent-evaluation-of-armed-service-final-report/>

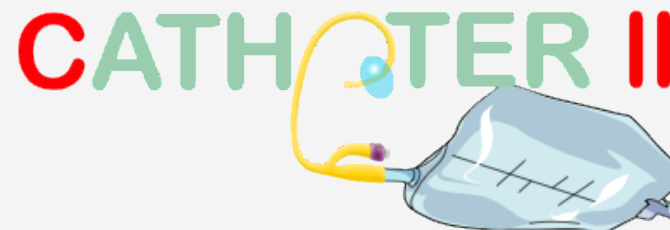
Novavax

The Novavax clinical trial, the biggest ever hosted by NHS Grampian and led locally by Roy, was successfully completed. It tested a new protein-based vaccine against covid and showed it was highly effective in preventing the illness. Following the success of the trial, the team has tested a new plant-based vaccine. Roy is also the Deputy Principal Investigator of the RECOVERY trial, which tested new treatments and found dexamethasone and tocilizumab are effective in treating the disease. A whole raft of widely promoted treatments were found to be ineffective, including hydroxychloroquine. This is just as important so that people are not exposed to ineffective treatments that may cause harm and valuable resources can be better used on more effective therapies. ACER members will continue to work on existing and new trials of covid treatments and preventative therapies in the coming year.

ONGOING WORK

Clinical Trial- CATHETER II Trial

This trial is led by Professor Abdel-Fattah. The trial recruitment was affected by COVID-19 pandemic and therefore it was required to submit a recovery plan to NIHR. Further discussion has taken place within the trial management group to develop innovative recruitment strategies. We hope our recovery plan will be approved by NIHR and the trial recruitment will pick up in 2022.



Translational Clinical Research – The CAPE (Cardiovascular Health in Women with history of Pre-eclampsia) Study

The study was halted throughout 2021 and we hope to restart the study in 2022. No cost extension was agreed by funders with the new end date in 2023.

Epidemiological work

The team has been continued to be productive with several research synthesis in areas of prognostic significance of nutritional markers in CVD outcomes and contemporary concepts and framework relevant to healthy ageing.

We continue to collaborate with Professor Mamas' group in Keele and Professor Potter's Ageing & Stroke Research Group at University of East Anglia. We continue to collaborate with EPIC-Norfolk cohort which resulted in novel investigations. We have also contributed some of the landmark trials in COVID-19 and continue to provide further evidence on Epidemiology of COVID-19 from the COPE (COVID-19 in Older People) study.

Scottish Care of Older People (SCoOP) National Audit

During 2021, we were able to publish long overdue 2018/2019 Acute Hospital Outcome Audit Published 24 Feb 2021. This was well received by clinical teams across the Scotland as well as among the leadership teams across different health boards.

The full report can be found here: <https://www.bgs.org.uk/resources/scottish-care-of-older-people-scoop-project>

SCoOP



PUBLICATION LIST 2021

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CONFERENCE PRESENTATIONS 2021

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Self-reported physical functional health predicts future bone mineral density in EPIC-Norfolk cohort. S Perrott, K Martin, P Myint. The Physiological Society: Future Physiology 2021 Virtual Conference (19-22 April). E-poster.

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Non-steroidal anti-inflammatory agents and anastomotic leak rates across colorectal cancer operations and anastomotic sites: A systematic review and meta-analysis. Kastora S, Osborne L, Jardine R, Kounidas G, Carter B, Myint PK. Royal College of Surgeon of Edinburgh Student Conference 2021 (26 Nov).

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Marzo R, et al. Association of Active Ageing and Quality of Life Among Older Adults: Systematic Review. 2nd World Conference on Public Health 2021 (26-27 Nov online event).

PRESS RELEASES/IN THE NEWS

Impact of International Travel

<https://www.abdn.ac.uk/news/14653/>

This study is led by Tiberiu and published in BMJ Open has attracted a lot of media attention, including Tiberiu featuring in RT UK and being mentioned by Labour MP the Right Honourable Mr Ian Murray citing the work during the BBC Question Time aired on 11th Feb 2021.



CONGRATULATIONS

The following success stories of ACER members worth highlighting.

Tiberiu was successful in securing Academic Foundation Programme post and started as AFP Year 1 doctor from August 2021. In addition, he has been awarded the Emad El-Omar Prize which is awarded to a graduate for their outstanding contribution to Academic Development in the School of Medicine, Medical Sciences and Nutrition.

Selva submitted the revised version of her thesis “Orthostatic Hypotension and Hyponatraemia in Older People” and passed her PhD and attended University of Aberdeen Graduation Ceremony in November 2021.

Our staff affiliate **Luke** (Mr Luke Farrow, SCREDS CL in Trauma & Orthopaedics) was successful in CSO Clinical Fellowship for his PhD project.

Josh (Chengkai Sun) passed his MSc in Global Health and Management with commendations!

Melissa (Sheng Hui Kioh) has successfully defended and was awarded PhD.

Well done and congratulations to all of them!

Selva @ Winter Graduation
24th November 2021



Tanos P, Ablett AD, Carter B, Ceelen W, Pearce L, Stechman M, McCarthy K, Hewitt J, Myint PK. SHARP risk score: a predictor of poor outcomes in adults admitted for emergency general surgery; a prospective cohort study. The European Society of Gynaecological Endoscopy ESGE 30th Annual Conference 3-5 Oct Rome, Italy.

Marzo R, et al. Association of Active Ageing and Quality of Life Among Older Adults: Systematic Review. 2nd World Conference on Public Health 2021 (26-27 Nov online event).

LOOKING AHEAD 2022

As we learn to live with COVID-19 with re-opening of University for face to face teaching, we are looking forward to 2022. COVID-19 has changed how we go about our jobs daily and it is foreseeable that hybrid-working would be likely to continue in 2022. We will continue to thrive undoubtedly and will demonstrate the resilience.

We are looking forward to running ACER PPI meeting face to face again in 2022 and also showcasing our work in national and international conferences 2022, which we hope will be face to face meetings.

MEMBERS DECEMBER 2021

Lead Clinical Academic

Professor Phyo Kyaw Myint - Professor of Medicine of Old Age

Senior Honorary Clinical Staff (NHS Grampian)

Dr Roy L Soiza - Reader/Consultant Physician

Dr Robert Caslake - Senior Lecturer/Consultant Physician

SCREDS Clinical Lecturers

Dr Alison Donaldson - SCREDS Clinical Lecturer

Dr Isobel Sleeman - SCREDS Clinical Lecturer

Research and Related Staff

Dr Carrie Stewart - Post Doctoral Research Fellow

Mrs Bolanle Brikinns - NRS Nursing Research Fellow, NHS Grampian

Mr Luke Farrow - SCREDS Clinical Lecturer/SCO Clinical Research Fellow

Dr Adrian Wood - GP Specialty Trainee

Honorary Staff

Professor Hamid Baradaran - Honorary Senior Research Fellow

Dr Stephen McCall - Honorary Senior Research Fellow

Dr Alexander Davidson - Honorary Research Fellow

Dr Eilidh Bruce - Honorary Clinical Research Fellow

Dr Raphael Barlas - Honorary Research Fellow

Dr Jesus A Perdomo Lampignano - Honorary Clinical Research Fellow

Dr Tiberiu A Pana - Honorary Clinical Research Fellow

Postgraduate Research Students

Mr Athagran Nakham - PhD Candidate

Dr David Gamble, BHF Clinical Research Fellow

Dr Roy Rillera Marzo - PhD Candidate (Monash University, Malaysia)

Dr Loulwah Serri - PhD Candidate

Dr Nur Fazidah Asmuje - PhD candidate (University of Malaya)

Staff/Student Affiliates

Miss Weronika Szlachetka - MBChB

Miss Zahra Pasdar - MBChB

Mr Abdel Rahman Abdel Fattah - MBChB

Dr Ekta Gupta - Lecturer in Dentistry

Dr Stephen Makin - Clinical Senior Lecturer, Centre for Rural Health

Visiting Staff/Students/External Affiliates

Dr Chun Shing Kwok - Clinical Lecturer in Cardiology, Keele University

Dr Toby Smith - Associate Professor of Physiotherapy, University of East Anglia

Dr Mohannad Kafri - Assistant Professor, Birzeit University

Dr Mouna Sawan - National Health and medical Research Council (NHMRC)

Visiting Fellow, University of Sydney

Dr Emma Law - Manager, Neuro-progressive and Dementia Network (NDN)

Dr Joao H Bettencourt Silva, Norfolk and Norwich University Hospital

Dr Samantha Chandrika Vijewardane Rt- Public Health Nutrition Clinical Research Fellow

CONTACT US

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AGEING CLINICAL AND EXPERIMENTAL RESEARCH TEAM

DEPARTMENT OF MEDICINE FOR THE ELDERLY
ANNUAL REPORT 2021