

Exercise Medicine  
Research Institute  
STRATEGIC RESEARCH INSTITUTE



# 2023 ANNUAL REPORT

**Exercise Medicine Research Institute**  
*Celebrating 20 years of Research, Education and Community Service*



# 2023 HIGHLIGHTS

**EMRI awarded 2 of 16  
global grants by the  
World Cancer  
Research Fund**



**Third most published  
University internationally  
in exercise and cancer**

(Scival, 2024)

Clinical Trials

12

Active trials



30,225

Patient contacts



EMRI Practicum  
Students

72

EMRI HDR Students

35

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## Report from the Director

It is a great pleasure to present the 2023 Annual Report for the Exercise Medicine Research Institute (EMRI), at Edith Cowan University (ECU).

**2023 marks a significant milestone for EMRI as we proudly celebrate 20 years of unwavering commitment to research and the community and I would like to take this opportunity to reflect on our successes.**

Over the past two decades the Institute has been recognised as an international leader in exercise medicine in the management of chronic disease with primary focus on cancer and neurological conditions.

*The impact of our research has been enormous and has changed clinical practice in exercise medicine for cancer globally - ECU is the highest published University in the world in the field of Exercise and Prostate Cancer and the third most published Institution internationally for Exercise and Cancer.*

Over the past two decades EMRI researchers have co-authored guidelines and consensus statements in exercise medicine for state, national and international organisations including:

- *Cancer Council Western Australia Guidelines for Implementing Exercise Programs for Cancer Survivors (2006; first guidelines in Australia);*
- *Exercise and Sports Science Australia (ESSA) Position Statement on Exercise for Cancer Survivors (2009 and 2019);*
- *American College of Sports Medicine (ACSM) Consensus Statement on Exercise Guidelines for Cancer Survivors (2010 and 2019);*
- *Exercise and Sports Science Australia (ESSA) Position Statement on Prescription for the Prevention and Management of Osteoporosis (2017);*
- *Psychological Care Model for Men with Prostate Cancer, Prostate Cancer Foundation of Australia (2019);*
- *Exercise Medicine in Oncology: Engaging Clinicians to help patients move through cancer (CA A Cancer Journal for Clinicians – Flagship Journal of American Cancer Society, 2019); and*
- *Position Statement on Screening for Distress and Psychological Care for Men with Prostate Cancer (2019).*

These guidelines *had major research translational impact and continue to contribute significantly to advancement of clinical recommendations as historically clinicians advised cancer patients to rest and to avoid physical activity.* Current international clinical recommendations are for patients and survivors of cancer to avoid being sedentary and return to normal activity as soon as possible after diagnosis or treatment and receive a targeted exercise medicine program to improve their outcomes.



EMRI's achievements have been underpinned by our success with research income. Remarkably, we have secured continuous external funding for 20 years since inception, including multiple grants from National Health and Medical Research Council, Prostate Cancer Foundation of Australia, Cancer Australia, Movember Foundation, Medical Research Future Fund, Cancer Council Western Australia, Centre for Research Excellence (CRE) in Prostate Cancer Survivorship, Collaborative Research Network (CRN) in Exercise Medicine, World Cancer Research Fund, Spinal Cord Injury Australia and many others supporting early, mid-career, senior researchers, research infrastructure and over 50 clinical trials/projects in Exercise Medicine.

A distinct achievement in our operations has been the successful development and implementation of the Vario Health Clinic located at ECU Joondalup Campus. Over the past two decades EMRI's Vario Health Clinic has provided a model setting to translate research knowledge by implementing and trialling clinical research findings. The clinic also provides infrastructure and supports core EMRI staff. We have had over half a million patient visits to our Joondalup Campus Clinic providing a unique community service and engagement and a site location for clinical placements for ECU students as well as students from other Universities within Western Australia and interstate. As a result, the Vario Health Clinic has had significant impact in all three of ECU's primary activities: research, teaching, and engagement.



*Professors Tony Watson and Rob Newton planning the development of Building 21.*

Over the past 20 years, EMRI has also demonstrated our firm commitment to developing Early Career Researchers (ECRs). Our ECR's have attracted extensive external competitive research funding and prestigious awards including Cancer Council WA postdoctoral research fellowships (6x); Cancer Council WA ECR research project grants (7x), Prostate Cancer Foundation of Australia Awards, New Independent Researcher Infrastructure Support (NIRIS) Awards in Western Australia, Vice-Chancellor's Awards for ECRs, and Tall Poppy Awards. Many of our graduates have leadership positions and are independent researchers contributing to the field nationally and internationally and attracting prestigious funding (e.g. NHMRC investigator grants) and holding academic positions in well-regarded Universities (e.g. Harvard).

EMRI's research, community engagement and our impact to society has been extensively featured in national and international media outlets – some examples included two ABC Catalyst episodes in exercise medicine - one fully showcasing ECU-EMRI's research area - as well as SBS Insight and articles in notable international news media such as the New York Times and Washington Post.

Specifically in 2023, EMRI was awarded two of only 16 prestigious global grants from the World Cancer Research Fund International <https://www.wcrf.org/latest/news-and-updates/ai-cancer-support-and-prostate-cancer-exercise-trial-among-projects-awarded-new-funding/>. These recent funded trials are specifically examining the role of exercise in improving radiation efficacy and investigating tumour suppressive biological mechanisms in response to exercise interventions for patients with cancer. The American Society of Clinical Oncology (ASCO) annual meeting in Japan featured EMRI's exercise and sexual health study in patients with prostate cancer and this was published in the ASCO press center: <https://society.asco.org/about-asco/press-center/news-releases/exercise-may-improve-sexual-dysfunction-caused-prostate-cancer> and ASCO post: <https://ascopost.com/news/august-2023/exercise-may-reduce-sexual-dysfunction-caused-by-prostate-cancer-treatment/>. ECRs Dr Caitlin Fox-Harding, Dr Oliver Schumacher, and Mid Career Researcher Dr Favil Singh presented their work at COSA, ANZUP, and APCC.

ECR Dr Jin-Soo Kim visited international laboratories in South Korea as part of professional development and bringing new biological assessment techniques to ECU and EMRI.

I would like to acknowledge and thank all EMRI associates for their dedication and commitment in 2023 and to ECU for supporting our vision from the outset and the continued assistance whilst achieving our goals as we celebrate 20 years. My sincere appreciation to the Board for their exceptional advice and direction, to the clinicians who actively advocate our research to the community and to all EMRI staff and students for their diligence and enthusiasm that continues to drive our success – I look forward to a prosperous 2024.



**Professor Daniel Galvão, FACSM, FESSA**  
Director, Exercise Medicine Research Institute

## Who we are

Established in 2003, the Exercise Medicine Research Institute (EMRI) at Edith Cowan University (ECU) is an international leader in exercise as a medicine in the management of chronic disease, with a primary focus on cancer and neurological conditions. The Institute houses an innovative, multidisciplinary and productive research team in exercise medicine, diet therapy, and behavioural medicine that is dedicated to investigating the extent to which exercise can be employed in cancer management to materially improve patient outcomes.

EMRI is a National Health and Medical Research Council (NHMRC) Centre for Research Excellence in Prostate Cancer Survivorship and has received continuous nationally competitive research funding since its establishment including from the National Health & Medical Research Council, Prostate Cancer Foundation of Australia (PCFA), Cancer Australia, Cancer Council Western Australia (WA) and the Movember Foundation.

EMRI has extensive national and international linkages, and continues to build collaboration among researchers, clinicians, industry and government to optimise health and improve the quality of life and survival for people with cancer.

The research team's unique convergence of clinical patient care, exercise medicine and innovation in health intervention underpins the Institute's achievement in cancer research.

## Our vision, purpose and values

Our vision is for exercise to be a core component of medicine for complex and chronic conditions. Through world leading research, the Exercise Medicine Research Institute creates the knowledge to shift existing paradigms of medical care to improve patient outcomes.

The Exercise Medicine Research Institute is a pioneer in prescribing exercise to manage chronic disease. Our research has improved clinical management of patients with cancer and neurological conditions, providing WA patients with access to first-in-Australia technology and clinical exercise programs at the Institute's Vario Health Clinic.

ECU's **purpose** is to transform lives and enrich society.

ECU's **vision** is to lead the sector in educational experience, research with impact, and in positive contributions to industry and communities.

Students, staff and Council members will always conduct their study, work and service to ECU in ways that embrace the University's **values**.

**Integrity:** We are ethical, honest and fair and demonstrate trust and personal responsibility.

**Respect:** We treat everyone within our diverse community with dignity and respect.

**Rational Inquiry:** Our decision-making is driven by evidence, sound reasoning and creative thinking.

**Personal Excellence:** We demonstrate the highest personal and professional standards.

**Courage:** We are bold and resolute in our thinking and actions in pursuit of our goals.

## Our strategic focus

The Exercise Medicine Research Institute is committed to meeting the goals and objectives of the University's new *Strategic Plan 2022–2026 – Towards the University of the Future*, which outlines ECU's commitments to achieve its vision as follows:

- Be dedicated to every student's success
- Provide real-world research solutions
- Create partnerships for economic and social wellbeing
- Empower our staff to lead in a diverse and values-based organisation
- Secure our future through innovation and leadership

### EMRI's goals and priorities

1. Attract, support, grow and retain the best researchers
2. Undertake world-class research on exercise medicine, from benchtop to bedside
3. Ensure exercise medicine is innovative and integrated for patient care
4. Change the narrative around management of chronic disease

### ECU's strategic goals and priorities

1. Delivering an exceptional student experience for success in work and life
2. Undertaking impactful world-class research
3. Leading the sector in internationalisation
4. Empowering the talent and potential of our staff
5. Securing our future



## Awards and recognition

- Dr Caitlin Fox-Harding received an EMRI Early-career Research Award for career development support to present at the Clinical Oncology Society of Australia 2023 Conference.
- Dr Favil Singh received an EMRI Mid-career Research Award for career development support to present at the Australian Prostate Cancer Council 2023.
- Dr Oliver Schumacher received an EMRI Early-career Research Award for career development support to present at the Australian New Zealand Urological and Prostate Cancer Trials Group Conference.
- Dr Jin-Soo Kim received an EMRI Early-career Research Award for Professional Development in Cancer Biology and novel laboratory techniques.
- Mrs Claire Mason received the Catherine Bell Award for Excellence and Professional Development.



Dr Jin-Soo Kim received an early-career research award for professional development support. Dr Kim presented his research at Inha University, South Korea.



From left: Professor Rob Newton, Dr Favil Singh and Professor Daniel Galvão at the Asian Pacific Prostate Cancer Conference.



Claire Mason received the Catherine Bell Award for Excellence and Professional Development.

# Report on performance

EMRI’s response in 2023 to the strategic goals and priorities set out in the University's Strategic Plan met or exceeded the Institute’s targets. Key highlights of EMRI’s achievements during the year follow.

## Highlights: Strategic goal 1

### Delivering an exceptional student experience for success in work and life

EMRI promotes a high-level research culture through a model of participation, collaboration and integration. It’s an environment in which staff and students share and work towards realising ECU’s vision: to lead the sector in educational experience, research with impact, and in positive contributions to industry and communities.

### Higher Degree by Research (HDR)

EMRI’s objective to foster HDR excellence saw an increase in the total HDR cohort from 29 to 35, with six new enrolments at the Institute in 2023.

HDRs	2023
Number of HDR completions (including PhD and Masters)	4
Number of new HDR enrolments (including PhD and Masters)	6
Total number of HDR candidates (including PhD and Masters)	35
Number of publications co-authored by a HDR candidate	25

Compliance	
Research Integrity Training (percentage of members completed)	100%
Registered Accredited HDR Supervisors (percentage of members completed)	100%

## Highlights: Strategic goal 1

### Delivering an exceptional student experience for success in work and life (cont'd)

#### HDR students

- Abdolrahman Najafi (PhD)
- Angela Uphill (PhD)
- Anna Markarian (PhD)
- Anthony Gould (PhD)
- Bapti Roy (Masters)
- Benjamin Kirk (PhD)
- Bianca Iacopetta (PhD)
- Brianna Fleay (Masters)
- Callum McCaskie (PhD)
- Calvinjit Sidhu (PhD)
- Christine Kudiarasu (PhD)
- Christopher Andrew (PhD)
- Clare McCall (Masters)
- Cristina Garcia (PhD)
- Estee Lau (PhD)
- Francesco Bettariga (PhD)
- Hao Luo (PhD)
- Jiahao Yang (PhD)
- Joao Alves Nunes (PhD)
- Julie Sartori (PhD)
- Kedar Deshpande (PhD)
- Kylie Cormack (PhD)
- Larissa Hentrich (PhD)
- Lorna Mansell (Masters)
- Maria Grammenou (PhD)
- Matheus Daros Pinto (PhD)
- Min Jyue Huang (PhD)
- Naduni Wijethunga (PhD)
- Nishu Tyagi (PhD)
- Pedro Lopez (PhD)
- Sanjay Ramakrishnan (PhD)
- Sarah Ford (Masters)
- Thai Hong Ngoc Vo (Masters)
- Thomas Cikoratic (PhD)
- Tsuyoshi Nagatani (PhD)



## Highlights: Strategic goal 2

### Undertaking impactful world-class research

EMRI’s ongoing research program responds to the constantly evolving clinical treatment of complex conditions. We are discovering, for example, the underlying biological mechanisms through which exercise medicine suppresses cancer cell growth and enhances the effectiveness of radiation therapy. We are also investigating if exercise in patients with borderline resectable or locally advanced pancreatic cancer undergoing neoadjuvant therapy can improve patient outcomes, and the potential of telehealth exercise programs in patients who are overweight or obese.

Research excellence	
Grants awarded/ research income	\$1,002,966/\$1,303,129
Clinical research income	\$546,682
Total research income	\$1,849,811
Number of publications	58
Number of Q1 publications (journal articles)	37
Number of publications with an international co-author	32

### New research grants

EMRI secured over \$1 million in research grant funding in 2023 as follows:


- 2024-2027, Exercise medicine as adjunct therapy during RADiation for Cancer of the prostaTE to improve treatment efficacy – the ERADICATE study: a phase II randomized controlled trial, World Cancer Research Fund, Investigator Initiated Grant, **\$534,960**.
- 2024-2026, Enhancing circulatory myokines and extracellular vesicle uptake with targeted exercise in patients with Prostate Cancer: The MYEX Trial, World Cancer Research Fund, Pilot Grant, **\$117,156**.
- 2024-2025, Cancer suppression, cytokine levels and body composition variation across prostate cancer stage and treatments: The CYTOCOMP Study, Cancer Council of WA, Suzanne Cavanagh Early Career Investigator Grant, **\$34,500**.
- 2023-2028, Optimizing care of malignant and benign pleural diseases, Institute of Respiratory Health, Scholarships to support Industry Engagement PhD projects, **\$105,000**.
- 2023 – 2026 ISC-TEAM: Integrative Supportive Care Trial to Enhance physical Activity in Malignant pleural effusion, Institute for Respiratory Health, Scholarships to Support Industry Engagement PhD Projects, **\$166,350**.
- 2023-2027, Understanding bone health in AFL and AFLW athletes, West Coast Eagles Football Club, PhD Scholarship, **\$45,000**.



## Continuing grants

- 2023-2025, Spinal Cord Injury Collaborative Research Program: A partnership between Spinal Cord Injuries Australia (SCIA) and ECU, Spinal Cord Injuries Australia, Collaborative Research Program Grant, **\$2,138,503**.
- 2022-2025, Exploring the gap in supportive cancer care in rural and remote WA, Department of Health WA, Future Health Research and Innovation Fund – Implementation Science Fellowship, **\$731,186**.
- 2022-2027, SCIA Industry Scholarship, Spinal Cord Injuries Australia, PhD Scholarship, **\$105,000**.
- 2023-2025, Postdoctoral Research Fellowship, Cancer Council WA, **\$225,000**.
- 2022, Priority Impact Research Award – Future Leaders, Prostate Cancer Foundation of Australia, **\$100,000**.
- 2022-2026, A multicomponent exercise medicine program in patients with pancreatic cancer undergoing neoadjuvant therapy (the EXPAN trial): A two-armed phase I randomised controlled trial, National Health & Medical Research Council, MRFF – Clinical Trials Activity (Rare Cancers, Rare Diseases and Unmet Need) Initiative, **\$561,910**.
- 2021, Prostate cancer survivorship essentials for men with prostate cancer on androgen deprivation therapy: Transforming care to improve outcomes, National Health & Medical Research Council, Partnership Project Grant, **\$2,250,000**.
- 2021-2025, Australasian Malignant Pleural Effusion (AMPLE)-3 trial, National Health & Medical Research Council, Clinical Trials and Cohort Studies, **\$1,105,749**.
- 2021-2023, Weight loss for overweight and obese prostate cancer patients: A randomised trial of a clinic-based versus telehealth delivered exercise and nutrition intervention, Cancer Council WA, Prostate Cancer Research Initiative, **\$472,739**.
- 2020-2023, Physical health during isolation, including chronic disease progression in older Western Australians, Department of Jobs, Tourism, Science and Innovation, Covid-19 Research Fund, **\$100,000**.
- 2019-2024, SCIA Scholarship, Spinal Cord Injuries Australia, Scholarships to Support Industry Engagement PhD Projects, **\$105,000**.
- 2019-2023, Examining the effect of creatine supplementation in augmenting adaptations to resistance training in prostate cancer patients undergoing androgen deprivation therapy: A randomised, double-blind, placebo-controlled trial. Cancer Council WA, Collaborative Cancer Grant Scheme, **\$50,000**.
- 2018-2024, An exploratory study to determine if exercise can impact the gut microbiota composition of men receiving androgen suppression therapy for prostate cancer, Prostate Cancer Foundation of Australia, Grant, **\$98,875**.
- 2018-2023, Intense Exercise for survival among men with Metastatic Castrate-Resistant Prostate Cancer (INTERVAL – MCRPC): A multicentre, randomised, controlled, phase III study, The Movember Group, Movember – GAP4 Prostate Cancer Exercise and Metabolic Health, **\$635,910**.
- 2018-2023, Can exercise delay transition to active therapy in men with low grade prostate cancer? A multi-centre randomised controlled trial, National Health & Medical Research Council, Project Grants, **\$596,084**.
- 2018-2023, The effect of cognitive and exercise training on brain atrophy and cognitive decline in breast cancer patients treated with adjuvant chemotherapy agents, Cancer Council WA, Collaborative Cancer Grant Scheme, **\$99,932**.
- 2016-2024, Centre for Research Excellence in Prostate Cancer Survivorship (CRE-PCS), National Health & Medical Research Council, Centres of Research Excellence, **\$1,172,654**.

Medical Research  
**Future Fund**

 Prostate Cancer  
Foundation  
of Australia



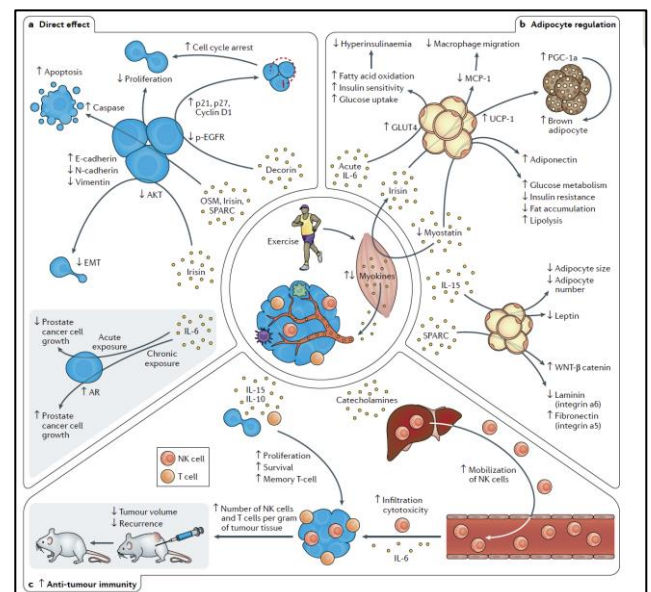
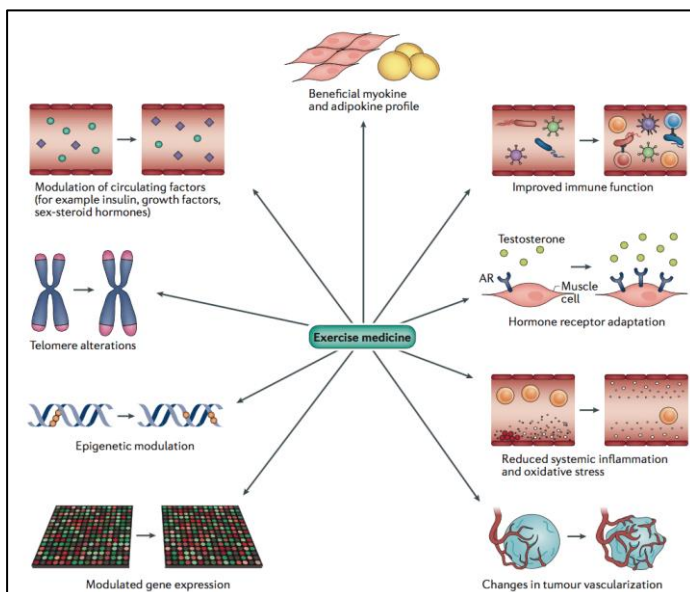
 **MOVEMBER**



**scia**  
Spinal Cord Injuries Australia

## Current research studies

- INTense exercise for survival among men with metastatic castrate-resistant prostate cancer (INTERVAL – MCRPC): A multi-centre, randomised, controlled phase III study.
- Weight loss for overweight and obese prostate cancer patients: A randomised trial of a clinic-based versus telehealth-delivered exercise and nutrition intervention.
- A multicomponent exercise medicine program in patients with pancreatic cancer undergoing neoadjuvant therapy (the EXPAN trial).
- Prostate cancer survivorship essentials for men with prostate cancer on androgen deprivation therapy: Transforming care to improve outcomes.
- The effects of accentuated eccentric resistance training on muscle mass and strength in prostate cancer patients undergoing androgen-deprivation therapy.
- A randomised controlled trial of exercise medicine for men undergoing active surveillance for prostate cancer.
- Exercise as adjuvant therapy to increase prostate tumour oxygenation and improve the effectiveness of radiotherapy.
- The effect of a supervised resistance exercise intervention on muscle in advanced-stage ovarian cancer survivors who have completed first line treatment.
- Physical health during isolation, including chronic disease progression in older West Australians.
- Effect of chronic and acute exercise-induced myokines on prostate cancer cells.
- Develop a systematic profiling of neurological conditions that will facilitate personalised treatment and streamline service delivery.
- An exploratory study to determine if exercise can impact the gut microbiota composition of men receiving androgen suppression therapy for prostate cancer.



## EMRI in the media (summary of major events reported)

Research findings from EMRI received global exposure at the recent American Society of Clinical Oncology Breakthrough Meeting held in Japan. The study was also published in 10 countries, reaching an audience of 25 million people.

**The ASCO Post** COVID-19 ABOUT NEWS MEETINGS TOPICS VIDEOS

### Study Shows Exercise May Improve Sexual Function in Men With Prostate Cancer

By Alice Goodman  
September 10, 2023


Get Permission

It seems that exercise is good for almost everything, including prostate cancer. In fact, exercise had a positive effect on sexual function and enjoyment in men with prostate cancer, according to a recent study presented at the 2023 ASCO Breakthrough meeting by lead study author Daniel Galvão, PhD, of the Exercise Medicine Research Institute at Edith Cowan University, Perth, Australia.<sup>1</sup>

The study showed that exercise, in the form of supervised resistance and aerobic exercises, improved erectile function and intercourse satisfaction in men with prostate cancer. However, self-managed psychosexual therapy did not lead to additional improvements in sexual function. According to the study authors, further research is needed to establish the long-term outcomes of exercise on sexual health in men with prostate cancer.

"Sexual dysfunction is a common, upsetting, and chronic side effect of prostate cancer treatment. Nearly half of patients with prostate cancer report having unmet sexual health care needs, highlighting the lack of current health-care services to adequately address the demand for management of sexual dysfunction after prostate cancer treatment. Our study shows that these patients can immediately benefit from supervised exercise interventions to improve their sexual health and that exercise should be considered an integral part of treatment for prostate cancer," said Dr. Galvão. "Men with prostate cancer concerned about sexual dysfunction should be encouraged to undertake exercise as a potential countermeasure," he added.

Prostate cancer itself as well as treatments such as surgery, radiation therapy, and chemotherapy may cause or exacerbate sexual dysfunction. Although sexual dysfunction is a common, distressing, and persistent adverse effect of prostate cancer treatment, current strategies are largely inadequate in improving the physical and psychological effects on sexuality.

 "Exercise is emerging as a potential therapy in the management of sexual health," explained Dr. Galvão.

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FEATURED NEWS

### Exercise may improve sexual dysfunction caused by prostate cancer treatment, according to new study in Australia

By ONA EDITOR — August 5, 2023 No Comments

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A combination of resistance and aerobic exercise may improve sexual function in patients with prostate cancer according to a new study conducted in Australia.

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### Exercise interventions improve sexual dysfunction caused by prostate cancer treatments

August 2, 2023  
Hannah Clarke

News Article



"Our study shows that these patients can immediately benefit from supervised exercise interventions to improve their sexual health and that exercise should be considered as an integral part of treatment for prostate cancer," says Daniel Galvão, PhD.

Partaking in resistance and aerobic exercise was found to improve erectile function and intercourse satisfaction among men receiving treatment for prostate cancer, according to findings from an Australian study (ACTRN12613001179729) that will be presented at the 2023 American Society of Clinical Oncology Breakthrough Meeting in Yokohama, Japan.<sup>1,2</sup>



## EMRI in the media (cont'd)



National WA Cancer

This was published 4 months ago

# Exercise is medicine: How a Perth scientist is using the gym to revolutionise cancer treatment



Mark Naglazas

August 3, 2023 – 8.13am

Save

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There's barely a person on the planet whose life has not been touched by cancer, including one of the world's leading lights in the battle against this most dreaded of diseases.

Rob Newton's father Usher was diagnosed with prostate cancer in 1993. After surgery and radiation, Usher was left a shell of his former World War II pilot self, barely able to move because of muscle weakness and fatigue.



## EMRI in the media (cont'd)



Thank you to [Cancer Council Western Australia](#) and Dr. Oliver Schumacher (EMRI) for your contributions to Cancer Research.



Oliver is a Post-Doctoral Research Fellow in the Exercise Medicine Research Institute. His work seeks to discover more about the role of exercise medicine in helping to reduce the risk of prostate cancer recurrence and improve survival by developing a better understanding of how exercise can influence a patient's response to cancer treatment.

Cancer Council WA supports local researchers like Oliver who conduct world-class research right here in Western Australia.



## EMRI community engagement initiatives/service



### *Relay for Life:*

225 laps, 94km, 24 hours later and the EMRI team raises over \$4,000 to support the Relay for Life event for cancer research and prevention.



### *Morning Tea*

Vario Health Clinic clients and staff celebrate Cancer Council WA biggest morning tea event.



### *Run for a Reason*

EMRIs Dr Hao Luo (above), and Sam Adams (right), complete the HBF 'Run for a Reason' in May 2023.



## EMRI community engagement initiatives/service

**Vario Health Clinic**  
EXERCISE MEDICINE  
RESEARCH INSTITUTE



EMRI-Vario Health clinic commemorates ANZAC Day with our DVA clients.



Kevin Ryan celebrates his 99<sup>th</sup> Birthday at EMRI-Vario Health Clinic.



## Highlights: Strategic goal 3 Leading the sector in internationalisation

In 2023, EMRI continued to nurture existing international collaborations and pursue prestigious international partnerships; for example, with the University of California San Francisco, University of Cologne and the University of Montreal Hospital Center.

EMRI is the lead of the INTERVAL-GAP4 global trial with 20 trial sites across 10 countries.

Long-term industry partnerships include global pharmaceutical company Abbvie, multinational pharmaceutical and biotechnology company AstraZeneca, and Technogym, which is the pre-eminent exercise equipment company in the world.

Ms Marit Mol completed a research internship at EMRI as a visiting honours student from The Netherlands. Marit was awarded the Dr. J. Bex prize for best Biomedical Science research internship for Radboud University Medical Center, The Netherlands.



From left: Dr Christelle Schofield, Dr Carolyn McIntyre and Ms Marit Mol.

## Highlights: Strategic goal 4

### Empowering the talent and potential of our staff

In line with the strategic priorities of ECU's goal to increase support for staff to maximise their talent and potential as individuals, members of teams and through their professional network, EMRI identified the need to develop professional courses for exercise physiologists, physiotherapists, medical and nursing professionals, who work with cancer patients and survivors.

The courses are designed to provide critical information required for allied health professionals to further enhance their own careers and to provide effective advice about the role of exercise in the management of cancer.

'Exercise Oncology at ECU' is a professional development course designed to provide the knowledge and skills required to design and implement safe and effective exercise programs for people with cancer. The course also provides critical information required for allied health professionals to deliver effective advice about the role of exercise in the management of cancer. In 2023, 12 medical and allied health professionals attended the course.

EMRI further recognises staff in their professional development through the annual EMRI Career Development Support Awards. In 2023, Dr Favil Singh was awarded an EMRI Research Award for career development support. Dr Oliver Schumacher and Dr Caitlin Fox-Harding were awarded EMRI Early-career Research Awards for career development support. Dr Jin-Soo Kim was awarded an EMRI Early-career Travel Award.



## Highlights: Strategic goal 5

### Securing our future

EMRI's advanced, world-class facilities enable the transformation of teaching, learning and research into real-world practice. For 20 years, we have secured funding for research equipment and clinical and research personnel from the NHMRC, PCFA, Commonwealth and State Departments of Health, and from philanthropic support – testimony to our reputation.

Together with ECU, the Institute established an exercise clinic facility within the West Coast Eagles site at Mineral Resources Park, in Lathlain. The facility is used as a major site for clinical trials.

In 2023 we reestablished the EMRI exercise clinic at Fiona Stanley Hospital.



Our commercial clinical operation – Vario Health Clinic has generated net profits which have been reinvested to acquire new infrastructure and equipment.

The Vario Health Clinic provides research-informed, best-practice allied health services and programs to the public. In 2023, the Clinic saw an increase in patient visits to 30,225, up from 29,082 in 2022.

In 2023, EMRI again pursued/secured funding for infrastructure to ensure that our state-of-the-art facilities and equipment at our vital facilities remain at the forefront of advances in technology.

### Vario Health Clinic

Vario Health Clinic offers a multidisciplinary approach including exercise physiology, physiotherapy and dietetics. In addition to one-to-one consults, we deliver 50+ evidence-based group sessions per week, uniquely tailored to the specific needs and conditions of each individual. We actively foster a sense of community through specialised group exercise sessions for cancer patients and survivors, veterans, people with ongoing chronic conditions and children with physical and developmental challenges. The clinic's extensive history bears testament to our effectiveness in enhancing not only physical function and independence but also the overall quality of life for those affected by chronic conditions. The clinic's most significant distinction lies in its integration within EMRI which conducts ground-breaking research exploring the transformative potential of exercise as a form of medicine.

***The Vario Health Clinic represents the seamless integration of research and practical application in the field of exercise medicine.***

#### Current Programs

- Exercise Medicine for Life
- Medicare Exercise Physiology, Physiotherapy and Dietetics

- Medicare Exercise Physiology, Physiotherapy and Dietetics (Telehealth)
- Medicare Group Allied Health Type 2 Diabetes Exercise Program
- Department of Veterans' Affairs Exercise Physiology, Physiotherapy and Dietetics
- Cancer Council Life Now Exercise Program
- Move Kids – Children/Teens Movement Program
- National Disability Insurance Scheme Exercise Physiology, Physiotherapy and Dietetics
- WorkCover WA Exercise and Physiotherapy Rehabilitation Program
- Private Exercise Physiology, Physiotherapy and Dietetics

### Major Clinical conditions treated 2023

- Cancer
- Neurological conditions including spinal cord injury, brain injury, stroke, Parkinson's disease
- Musculoskeletal disease (including arthritis, osteoporosis/osteopenia, acute and/or chronic musculoskeletal issues)
- Metabolic disease (diabetes, weight management)
- Cardiovascular disease
- Mental health conditions
- Coronary Artery Disease (CAD)

***In 2023 the Vario Health Clinic received 982 referrals from 309 GPs and was shortlisted for a National Award as ESSA Practise of the Year.***

### New Programs 2023

- Prostate Cancer
- Women's Health



**women's health exercise program**

PERI/MENOPAUSE  
BONE HEALTH  
POLYCYSTIC OVARY SYNDROME  
ENDO-METRIOSIS  
FATIGUE

Wednesdays  
5:00pm - 6:00pm  
25 Oct- 29 Nov 2023

**VARIO health clinic**  
The clinic is excited to launch its first ever **Women's Health** program, exclusively to **ECU staff**, prior to public launch in 2024.


The program includes:

- A complimentary individual assessment by an Accredited Exercise Physiologist (valued at \$85)
- Six-week program of strength training and mat pilates catered to different fitness levels and abilities
- Weekly sessions supervised by an Accredited Exercise Physiologist

If you are seeking exercise guidance specific to your underlying health conditions, this opportunity is for you!  
**Limited availability** (applications close 29 Sep 2023).

Exercise Medicine Research Institute  
**ECU**  
STRATEGIC RESEARCH INSTITUTE

CONTACT THE VARIO HEALTH CLINIC  
ON 6304 3444 TO BOOK YOUR PLACE



**PROSTATE CANCER EXERCISE CLASS**

Monday & Thursday  
3:30pm - 4:30pm  
ECU Joondalup

Bookings required  
Contact the Vario Health Clinic on 6304 3444

**VARIO health clinic**

With over 30 years of research in this field, each class is facilitated by an Accredited Exercise Physiologist and tailored-made for people affected by prostate cancer. Participants will receive a personalised program, in a safe and supportive group environment.

Benefits of exercise is known to:

- reduce treatment related side effects and symptoms
- improve immune and physical functions
- improve psychological well-being and quality of life
- reduce the risk of developing other chronic diseases

**ECU**  
EXERCISE MEDICINE RESEARCH INSTITUTE



## Report on operations

### Governance

EMRI is governed by an external Advisory Board, which oversees compliance of the Institute's governance responsibilities and provides strategic advice. An internal Management Committee manages and steers the Institute's operations and affairs.

### Meetings in 2023

Number of External Advisory Board meetings held in 2023 (for Institutes)	1 Board meeting with members 4 ad hoc meetings with individual members
Number of Steering Management Committee meetings held in 2023	23

### Advisory Board members

- Professor Daniel Galvão, Director, Exercise Medicine Research Institute
- Professor Rob Newton, Deputy Director, Exercise Medicine Research Institute
- Professor Suzanne Chambers, Executive Dean, Faculty of Health Sciences, Australian Catholic University
- Professor Paul Lavery, Centre for Marine Ecosystems Research, Edith Cowan University
- Dr Tom Shannon, Urologist, The Prostate Clinic
- Ms Francesca Rogers, Urology Clinical Nurse Consultant, Ramsay Health Care
- Ms Anne Elam, Consumer Representative, Vario Health Clinic

### Management Committee

- Professor Daniel Galvão, Director, Exercise Medicine Research Institute
- Professor Robert Newton, Deputy Director, Exercise Medicine Research Institute
- Ms Amanda Hall, Strategic Business Manager, Exercise Medicine Research Institute
- Professor Dennis Taaffe, Professor, Exercise Medicine Research Institute
- Mr Kyle Smith, Research and Clinic Coordinator, Exercise Medicine Research Institute
- Mrs Cailyn Walker, Research Coordinator, Exercise Medicine Research Institute

### Steering Management Committee

- Chair: Professor Daniel Galvão (Director of EMRI)
- Leadership Team: Professor Robert Newton (Deputy Director EMRI), Professor Dennis Taaffe, Ms Amanda Hall (Strategic Business Manager), Mr Kyle Smith (Clinical & Research Co-ordinator) Ms Christine Kudiarasu (Research Co-ordinator)
- Associate Dean (Research): A / Professor Claus Christophersen
- Early career researcher: Dr Hao Luo
- HDR: Ms Cristina Garcia

## External Committee appointments

- NHMRC Grant Review Panel Member Clinical Trials and Cohort Studies, Daniel Galvão
- Research Grants Committee of the Medical and Scientific Advisory Panel, Cancer Council WA, Rob Newton
- 23rd Asian-Pacific Prostate Cancer Conference 2023, Daniel Galvão
- 12th Australian and New Zealand Urogenital and Prostate Cancer Trials Group Scientific Meeting, Rob Newton
- National Research Advisory Committee, Prostate Cancer Foundation of Australia, Daniel Galvão
- The Healthy Male – Member, Board of Directors, Rob Newton
- Australian Research Council – Medical Research Advisory Group, Rob Newton
- National Breast Cancer Foundation, Scientific Committee, Rob Newton
- Cancer Council WA Pre-doctoral Research Grants Advisory Subcommittee, Favil Singh
- West Australian Bone Research Collaboration Committee, Jodie Cochrane Wilkie
- Raine Musculoskeletal Special Interest Group, Jodie Cochrane Wilkie
- Editorial Board for *BMC Sports Science, Medicine and Rehabilitation*, Jodie Cochrane Wilkie
- Editorial Board for *Journal of Gerontology Medical Sciences, Journal of Science and Medicine in Sport, Journal of Gerontology and Geriatrics, JSAMS Plus*, Dennis Taaffe
- ESSA Grants and Medal Review Panel, Dennis Taaffe
- Cancer Council Western Australia Postdoctoral Committee, Carolyn McIntyre
- COSA Project Steering Group: Development of a Toolkit to support implementation of the COSA Malnutrition and Sarcopenia position statement recommendations, Carolyn McIntyre



## Staff profile

### Academic staff



**Professor Daniel Galvão**  
Director  
Lead, Exercise & Genitourinary Cancers



**Professor Rob Newton**  
Deputy Director  
Lead, Exercise & Cancer Biology



**Professor Dennis Taaffe**  
Lead, Exercise & Gastrointestinal Cancers



**Dr Carolyn McIntyre**  
Lead, Exercise & Gynaecological Cancers



**Professor Ken Nosaka**  
Exercise & Sports Science



**Professor Joanne Dickson**  
Psychology



**Professor Dylan Edwards**  
Neurorehabilitation



**Dr Christelle Schofield**  
Co-Lead, Exercise & Gynaecological  
Cancers



**Dr Hao Luo**  
Co-Lead, Exercise & Gastrointestinal  
Cancers



**Dr Oliver Schumacher**  
Co-Lead, Exercise & Genitourinary Cancers



**Dr Jin-Soo Kim**  
Co-Lead, Exercise & Cancer Biology



**Dr Kristina Kendall**  
Exercise Science



**Dr Caitlin Fox-Harding**  
Exercise Science



**Dr Favil Singh**  
Exercise Physiologist

## Staff profile (cont'd)

### Professional Staff



**Amanda Hall**  
Strategic Business Manager



**Rebecca Lowe**  
Research Centre Officer



**Emma Apps**  
Research Centre Officer



**Kyle Smith**  
Clinic Coordinator



**Cailyn Walker**  
Research Coordinator



**Christine Kudiarasu**  
Accredited Exercise Physiologist



**Claire Mason**  
Accredited Exercise Physiologist  
Research



**Sam Adams**  
Accredited Exercise Physiologist  
Research



**Lydia Yap**  
Accredited Exercise Physiologist  
Research / Vario Health Clinic



**Nathalie Long**  
Accredited Exercise Physiologist  
Research / Vario Health Clinic



**Dayn Hedley**  
Accredited Exercise Physiologist  
Vario Health Clinic



**Rachel Orbuck**  
Accredited Exercise Physiologist  
Vario Health Clinic



## Staff profile (cont'd)



**Jessica Barclay**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Daley Peters**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Hayley Paterson**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Joel Latham**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Marco Kapp**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Nathanael Worthy**  
Accredited Exercise Physiologist  
NeuroMoves Clinic



**Vishaan Devchand**  
Physiotherapist  
NeuroMoves Clinic



**Dr Analise Nicholl**  
Accredited Practicing Dietitian  
Vario Health Clinic



**Simon Pratt**  
Physiotherapist  
Vario Health Clinic

## Staff profile (cont'd)

### Adjunct Academic Staff

**Associate Professor Lauren Buffart**

VU University Medical Centre, Amsterdam

**Associate Professor Vinicius Cavalheri**

South Metropolitan Health Service, Curtin University

**Professor Suzanne Chambers**

Australian Catholic University

**Clinical Associate Professor Raphael Chee**

GenesisCare and Perth Radiation Oncology

**Professor Kerry Courneya**

University of Alberta, Canada

**Clinical Associate Professor Kynan Feeney**

St John of God Hospital (Murdoch)

**Professor Frank Gardiner**

Royal Brisbane and Women's Hospital

**Dr Nicolas Hart**

Caring Futures Institute Cancer Survivorship Program, Flinders University

**Dr Emily Jeffery**

Curtin University

**Clinical Professor David Joseph**

Sir Charles Gairdner Hospital & GenesisCare

**Professor William Kraemer**

The Ohio State University

**Professor Gary Lee**

University of Western Australia Medical School

**Professor Fred Saad**

Chum Research Centre, Université de Montréal

**Professor Christobel Saunders**

The University of Western Australia Medical School

**Clinical Associate Professor Tom Shannon**

The Prostate Clinic

**Clinical Professor Aris Siafarikas**

Princess Margaret Hospital

**Clinical Professor Nigel Spry**

Exercise Medicine Research Institute

**Clinical Associate Professor Colin Tang**

Sir Charles Gairdner Hospital and 5D Clinics

**Clinical Associate Professor Daphne Tsoi**

St John of God Hospital (Subiaco and Murdoch)

**Dr Yvonne Zissiadis**

GenesisCare and Fiona Stanley Hospital

## EMRI Consumer Reference Group

In an effort to evaluate and improve our programme of research, the Exercise Medicine Research Institute formed a Consumer Reference Group with its first meeting held in October 2023 and plans for two meetings per annum thereafter. The Exercise Medicine Research Institute seeks to produce the highest quality patient-centred clinical research and it is through the involvement of consumers that we will continue to deliver research to meet the challenges experienced by and of most impact for our patients.

### **Purpose and Aim**

The purpose of the Consumer Reference Group is to provide a community perspective on the research conducted by the Exercise Medicine Research Institute. The consumer reference group aims to increase the consumer, carer and community participation in the planning, delivery, and evaluation of research studies. This aim is aligned with the National Health and Medical Research Council and Consumers Health Forum's Statement on Consumer and Community Involvement in Health and Medical Research (2016).

The Consumer Reference Group consists of nine community members, who all have experience of cancer. Members share their views and experiences and provide ideas on areas for future research to ensure that the patients' perspective is addressed. This group provides a vital link between the community and researchers within EMRI.

### **Terms of Reference:**

The Consumer Reference Group will provide or facilitate:

- Consumer and community perspectives on research activities conducted at the Exercise Medicine Research Institute.
- Advice and support on research grant applications and plain language summaries.
- Links between consumers, the community, and researchers at the Exercise Medicine Research Institute.
- Advice and expertise on consumer and community issues and priorities for research.
- Advocacy on behalf of consumers and the community where appropriate.
- Input into the development of strategies to inform the wider community about research associated with the group.

### **Community Members:**

Anne E, Maureen T, Gary T, Lynne S, Adrienne M, Greg K, John M, Delese B, Jack D

### **EMRI Facilitators**

Convenor: Dr Carolyn McIntyre; Senior Lecturer

Prof. Daniel Galvao; Director Exercise Medicine Research Institute

Mr Kyle Smith; Clinic and Research Supervisor

Ms Christine Kudiarasu; Research Coordinator

### **EMRI Contributors in 2023**

Dr Christelle Schofield; Post-Doctoral Research Fellow

Dr Oliver Schumacher; Post-Doctoral Research Fellow

Dr Jin Soo Kim; Post-Doctoral Research Fellow

Dr Hao Luo; Post-Doctoral Research Fellow

## International Standing



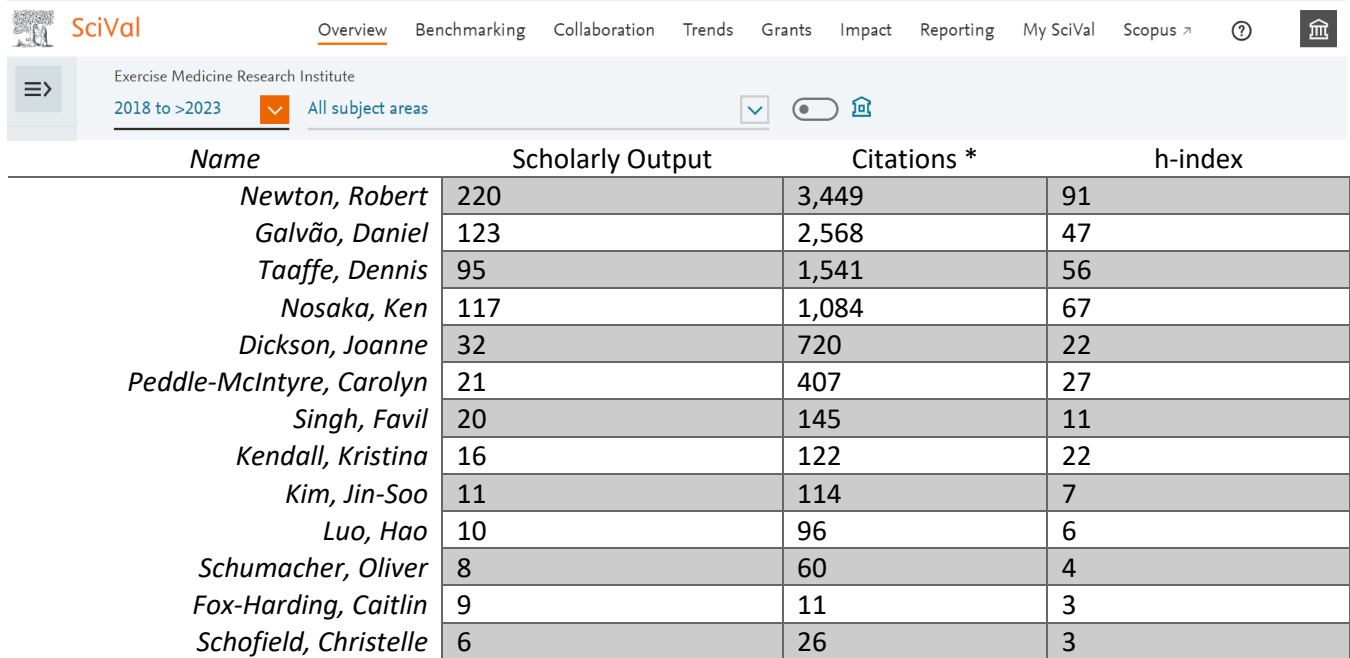
SciVal

Ranking	Institution	Scholarly Output	Field-Weighted Citation Impact	Citation Count
1	University of Toronto	99	1.25	817
2	University of Queensland	91	1.40	855
<b>3</b>	<b>Edith Cowan University</b>	<b>83</b>	<b>1.67</b>	<b>853</b>
4	University of Alberta	81	1.74	765
5	University of Calgary	70	1.01	631
6	University of Texas MD Anderson Cancer Center	68	1.68	769
7	University of Melbourne	66	1.04	452
8	Harvard University	55	2.32	1,163
9	Dana-Farber Cancer Institute	55	2.15	667
10	Queensland University of Technology	54	1.61	797

SciVal - Topic cluster TC.77 Neoplasms; Patients; Palliative Care (Exercise Oncology)  
 3-year data (2020-2023 data) Search From March 2024



## Publication Quality – EMRI Academic Members



The screenshot shows the SciVal interface for the Exercise Medicine Research Institute. The table displays the following data:

Name	Scholarly Output	Citations *	h-index
<i>Newton, Robert</i>	220	3,449	91
<i>Galvão, Daniel</i>	123	2,568	47
<i>Taaffe, Dennis</i>	95	1,541	56
<i>Nosaka, Ken</i>	117	1,084	67
<i>Dickson, Joanne</i>	32	720	22
<i>Peddle-McIntyre, Carolyn</i>	21	407	27
<i>Singh, Favil</i>	20	145	11
<i>Kendall, Kristina</i>	16	122	22
<i>Kim, Jin-Soo</i>	11	114	7
<i>Luo, Hao</i>	10	96	6
<i>Schumacher, Oliver</i>	8	60	4
<i>Fox-Harding, Caitlin</i>	9	11	3
<i>Schofield, Christelle</i>	6	26	3

Scival; 5-year data (2018-2023 data) Search From March 2024

\*Citations related to scholarly outputs from 2018-2023 only

## Publications

### Research Articles (PubMed Indexed Papers [search: EMRI affiliation and year: 2023])

1. Taaffe DR, McCombie SP, Galvão DA, Newton RU, LA Bianca S, Chambers SK, Spry N, Singh F, Lopez P, Schumacher O, Hawks C, Hayne D. Efficacy and Feasibility of Presurgical Exercise in Bladder Cancer Patients Scheduled for Open Radical Cystectomy. *Med Sci Sports Exerc.* 2023 Jul 1;55(7):1123-1132. doi:10.1249/MSS.0000000000003137.
2. Schofield C, Lopez P, Cohen PA, Taaffe DR, Newton RU, Galvão DA, Jeffery E, Meniawy TM, Peddle-McIntyre CJ. Skeletal muscle morphology in patients receiving primary versus interval cytoreductive surgery for advanced high-grade serous ovarian cancer. *Int J Gynecol Cancer.* 2023 Oct 2;33(10):1587-1594. doi:10.1136/ijgc-2023-004425.
3. Schofield C, Newton RU, Taaffe DR, Galvão DA, Cohen PA, Meniawy TM, Peddle-McIntyre CJ. Supervised resistance exercise for women with ovarian cancer who have completed first-line treatment: a pragmatic study. *Support Care Cancer.* 2023 Apr 26;31(5):304. doi:10.1007/s00520-023-07754-y.
4. Galvão DA, Taaffe DR, Kim JS, Newton RU, Lucia A. Can exercise increase natural killer cell infiltration of the prostate? *BJU Int.* 2023 Jan;131(1):1-3. doi: 10.1111/bju.15904.
5. Kim JS, Taaffe DR, Galvão DA, Saad F, Newton RU. Exercise Mediates Myokine Release and Tumor Suppression in Prostate Cancer Independent of Androgen Signaling. *Exerc Sport Sci Rev.* 2023 Oct 1;51(4):161-168. doi: 10.1249/JES.0000000000000323.
6. Kim JS, Taaffe DR, Galvão DA, Clay TD, Redfern AD, Hart NH, Gray ES, Ryan CJ, Kenfield SA, Saad F, Newton RU. Acute effect of high-intensity interval aerobic exercise on serum myokine levels and resulting tumour-suppressive effect in trained patients with advanced prostate cancer. *Prostate Cancer Prostatic Dis.* 2023 Dec;26(4):795-801. doi: 10.1038/s41391-022-00624-4.
7. Singh F, Newton RU, Taaffe DR, Lopez P, Thavaseelan J, Brown M, Ooi E, Nosaka K, Hayne D, Galvão DA. Prehabilitative versus rehabilitative exercise in prostate cancer patients undergoing prostatectomy. *J Cancer Res Clin Oncol.* 2023 Dec;149(18):16563-16573. doi: 10.1007/s00432-023-05409-3.
8. Cavalheri V, Grigoletto I, McVeigh J, Manners D, Boyle T, Peddle-McIntyre CJ, Thomas R, Leong J, Bowyer S, Mooney K, Straker L, Galvão DA. Association between Physical Activity and Reduced Mortality in Inoperable Lung Cancer. *J Clin Med.* 2023 Nov 27;12(23):7346. doi: 10.3390/jcm12237346.
9. James LP, Talpey SW, Young WB, Geneau MC, Newton RU, Gastin PB. Strength Classification and Diagnosis: Not All Strength Is Created Equal. *Strength and Conditioning Journal.* 2023, 45(3), 333-341. <https://doi.org/10.1519/SSC.0000000000000744>
10. Goh AM, Drinkwater EJ, Harms CA, Scanlan M, Newton RU, Ma'ayah F. (2023). Characteristics of goals scored in open play at the 2017 and 2018 Australian national cerebral palsy football championship. *International Journal of Sports Science & Coaching.* 2023, 18(3), 858-866. <https://doi.org/10.1177/17479541221095941>
11. Agbejule OA, Chan RJ, Ekberg S, Ashbury FD, Kleckner AS, Hart NH. Cancer-related fatigue self-management: a MASCC-endorsed practice framework for healthcare professionals to optimally support cancer survivors. *Support Care Cancer.* 2023 Nov 3;31(12):666. doi: 10.1007/s00520-023-08130-6.

12. Bettariga F, Taaffe DR, Galvão DA, Bishop C, Kim JS, Newton RU. Suppressive effects of exercise-conditioned serum on cancer cells: A narrative review of the influence of exercise mode, volume, and intensity, *Journal of Sport and Health Science* (2023), doi.org/10.1016/j.jshs.2023.12.001
13. Bettariga F, Bishop C, Taaffe DR, Galvão DA, Maestroni L, Newton RU. Time to consider the potential role of alternative resistance training methods in cancer management? *J Sport Health Sci.* 2023 Nov;12(6):715-725. doi: 10.1016/j.jshs.2023.06.007.
14. Bettariga F, Maestroni L, Martorelli L, Turner A, Bishop C. The Effects of a 6-Week Unilateral Strength and Ballistic Jump Training Program on the Force-Velocity Profiles of Sprinting. *J Strength Cond Res.* 2023 Jul 1;37(7):1390-1396.doi:10.1519/JSC.0000000000004424.
15. Bettariga F, Lopomo NF, Civera F. et al. Reliability and Validity of Hand-Held Dynamometer and Hand-Held Sphygmomanometer for Testing Shoulder Isometric External and Internal Rotator Muscles Strength. *J. of Sci. in Sport and Exercise* (2023). doi.org/10.1007/s42978-023-00232-1
16. Boato F, Guan X, Zhu Y, Ryu Y, Voutounou M, Rynne C, Freschlin CR, Zumbo P, Betel D, Matho K, Makarov SN, Wu Z, Son YJ, Nummenmaa A, Huang JZ, Edwards DJ, Zhong J. Activation of MAP2K signaling by genetic engineering or HF-rTMS promotes corticospinal axon sprouting and functional regeneration. *Sci Transl Med.* 2023 Jan 4;15(677):eabq6885. doi:10.1126/scitranslmed.abq6885
17. Chan RJ, Milch VE, Crawford-Williams F, Agbejule OA, Joseph R, Johal J, Dick N, Wallen MP, Ratcliffe J, Agarwal A, Nekhlyudov L, Tieu M, Al-Momani M, Turnbull S, Sathiaraj R, Keefe D, Hart NH. Patient navigation across the cancer care continuum: An overview of systematic reviews and emerging literature. *CA Cancer J Clin.* 2023 Nov-Dec;73(6):565-589. doi: 10.3322/caac.21788.
18. Crosby BJ, Newton RU, Galvão DA, Taaffe DR, Lopez P, Meniawy TM, Khattak MA, Lam WS, Gray ES, Singh F. Feasibility of supervised telehealth exercise for patients with advanced melanoma receiving checkpoint inhibitor therapy. *Cancer Med.* 2023 Jul;12(13):14694-14706. doi: 10.1002/cam4.6091.
19. de Lemos Muller CH, Schroeder HT, Farinha JB, Lopez P, Reischak-Oliveira Á, Pinto RS, de Bittencourt Júnior PIH, Krause M. Effects of resistance training on heat shock response (HSR), HSP70 expression, oxidative stress, inflammation, and metabolism in middle-aged people. *J Physiol Biochem.* 2023 Nov 6. doi: 10.1007/s13105-023-00994-w.
20. Dickson JM, Hart A, Fox-Harding C, Huntley CD. Adaptive Goal Processes and Underlying Motives That Sustain Mental Wellbeing and New Year Exercise Resolutions. *Int J Environ Res Public Health.* 2023 Jan 4;20(2):901. doi: 10.3390/ijerph20020901.
21. Edwards DJ, Liu CY, Dunning K, Fregni F, Laine J, Leiby BE, Rogers LM, Harvey RL. Electric Field Navigated 1-Hz rTMS for Poststroke Motor Recovery: The E-FIT Randomized Controlled Trial. *Stroke.* 2023 Sep;54(9):2254-2264. doi: 10.1161/STROKEAHA.123.043164.
22. Esgin T, Hersh D, Rowley K, Macniven R, Crouch A, Halaki M, Newton R. The facilitators and barriers to exercise in the Noongar Aboriginal population in Perth, Australia. *Health Promot Int.* 2023 Jun 1;38(3):daac023. doi: 10.1093/heapro/daac023.
23. Esgin T, Macniven R, Crouch A, Martiniuk A. At the cultural interface: A systematic review of study characteristics and cultural integrity from twenty years of randomised controlled trials with Indigenous participants. *Dialogues in Health,* 2023; 2. doi.org/10.1016/j.dialog.2023.100097.

24. Fairman CM, Kendall K, Newton RU, Hart NH, Taaffe DR, Lopez P, Chee R, Tang CI, Galvão DA. The Impact Of Creatine Supplementation And Resistance Training On Body Composition And Physical Function In Men With Prostate Cancer Receiving Androgen Deprivation Therapy: 2844. *Medicine & Science in Sports & Exercise* 55(9S):p 971, September 2023. | DOI: 10.1249/01.mss.0000988868.10746.c0
25. Fairman CM, Owens OL, Kendall KL, Steele J, Schumpp AR, Latella C, Jones MT, Marcotte L, Dawson JM, Peddle-McIntyre CMJ, McDonnell KK. Hybrid delivery of cluster-set resistance training for individuals previously treated for lung cancer: the results of a single-arm feasibility trial. *Pilot Feasibility Stud.* 2023 Oct 17;9(1):177. doi: 10.1186/s40814-023-01405-z.
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27. Grazioli R, Inácio M, Lopez P, Freitas SR, Cunha GDS, Machado CLF, Veeck F, Baroni BM, Cadore EL, Pinto RS. Effects of eccentric-emphasized leg curl intervention on muscle strength imbalance markers in professional soccer players during pre-season. *J Bodyw Mov Ther.* 2023 Jul;35:28-32. doi:10.1016/j.jbmt.2023.04.012.
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33. Joseph R, Hart NH, Bradford N, Wallen MP, Han CY, Pinkham EP, Hanley B, Lock G, Wyld D, Wishart L, Koczwara B, Chan A, Agbejule OA, Crichton M, Teleni L, Holland JJ, Edmiston K, Naumann L, Brown T, Chan RJ. Essential elements of optimal dietary and exercise referral practices for cancer survivors: expert consensus for medical and nursing health professionals. *Support Care Cancer.* 2022 Dec 16;31(1):46. doi: 10.1007/s00520-022-07509-1.
34. Joshi KK, Siafarikas A, Prince R. The Natural History of Symptomatic Fractures in Children and Adolescents with Osteogenesis Imperfecta Type 1: A Cohort Study from Western Australia. *JBMR Plus.* 2023 Jun 21;7(9):e10782. doi: 10.1002/jbm4.10782.



35. Khan A, Welman CJ, Abed A, O'Hanlon S, Redfern A, Azim S, Lopez P, Singh F, Khattak A. Association of Computed Tomography Measures of Muscle and Adipose Tissue and Progressive Changes throughout Treatment with Clinical Endpoints in Patients with Advanced Lung Cancer Treated with Immune Checkpoint Inhibitors. *Cancers (Basel)*. 2023 Feb 22;15(5):1382. doi: 10.3390/cancers15051382.
36. Kudiarasu C, Lopez P, Galvão DA, Newton RU, Taaffe DR, Mansell L, Fleay B, Saunders C, Fox-Harding C, Singh F. What are the most effective exercise, physical activity and dietary interventions to improve body composition in women diagnosed with or at high-risk of breast cancer? A systematic review and network meta-analysis. *Cancer*. 2023 Dec 1;129(23):3697-3712. doi: 10.1002/cncr.35043.
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