Head of Department Welcome

On behalf of PESS I would like to welcome you to the fourth edition of the online magazine Physical Education and Sport Sciences e-Zine.

Further staffing changes have occurred since the last edition of the e-Zine and I would like to take this opportunity to welcome Gary Ryan (Physical Activity Health Lifestyle and Sports (PAHLS) Project Manager), Dr. Matthew Herring (Lecturer in Exercise Psychology) and Ursula McCarthy (Applied Studies Coordinator). David Kelly, Grainne Hayes and Caoimhe Tiernan are welcomed to the Department as Teaching Assistants and Michelle Dillon returns to PESS for a 11-month appointment. The Department is particularly proud to acknowledge that Drs. Brian Carson, Mark Campbell and Mark Lyons were successful in the most recent round of progression.

I would like to take this opportunity to draw your attention to the article in this edition of the e-Zine that pays tribute to Professor Pat Duffy. A number of colleagues in the field of physical education, sport and coaching are still struggling with the untimely passing of Pat whose vision, energy and continual hopes for Irish physical education, sport and physical activity provision were unfaulting throughout the years.

Again, the calibre of PESS students has been acknowledged at the August 2014 conferring ceremonies with Lisa Bolger, a 2014 graduating year 4 Sport and Exercise Sciences student, receiving the Silver Medal award for the highest scoring student across all Education and Health Sciences programmes. Also acknowledged were James McAssey and Brendan O'Keeffe from the graduating cohort of the Physical Education programme who jointly received the Silver Medal award for the highest scoring students in interfaculty the graduating year of the Physical Education programme, was awarded the School Placement Award 2014.

PESS is delighted to be introducing a new Masters programme in January 2015 titled a Masters in Sport, Exercise and Performance Psychology. Further information on the programme is included in a related article in this edition.

I trust you find the information and articles in this edition of PESS E-Zine informative and ask that if you have any interest in collaborating on teaching or research with PESS that you contact me directly at Ann.MacPhail@ul.ie.

Regards.

Ann

Note from the Editors

Welcome to the fourth edition of the ‘PESS e-Zine’. This issue looks at the breadth of some of the research activities, and events that have happened or are ongoing in the Physical Education and Sport Sciences (PESS) Department since February 2014.

The semester is in full swing and we hope that this edition of the e-Zine can bring a little break to your busy lives! This edition offers research news about DEDIPAC, a recent Sport Pedagogy retreat, the 8th PEPAYS Forum, competitor fatigue in cross country rallies and research from the Biomechanics Research Unit. Outreach activities continue in PESS and there is an update from the Siel Bleu study, recent work between Dr. Mark Campbell and colleagues and the Power Chair Football National Team as well as the visit by some of the 2014 BT Young Scientist & Technology Exhibition participants to the PESS department. Dr. Will McCormack takes time out of his day to tell us about his experience of combining work in research and industry. Following a similar theme, two of the recipients of the PESS internships describe their unique PESS internship experience so that other students can see the tremendous benefits of securing these practical placements. PESS staff and student achievements are acknowledged and celebrated in the latter pages of the e-Zine. We would like to thank all our contributors to the October 2014 edition we hope you enjoy this PESS e-Zine edition.

Rhoda Sohun and Ian Kenny
CONTENTS

Physical Education & Sport Sciences | e-Zine | Oct 2014

Research

6 DEDIPAC: The Determinants of Diet and Physical Activity (Konwledge Hub)
9 Sport Pedagogy Research Retreat
   Dr. Missy Parker
10 Saving Lives in Cross Country Rallies: Evaluating Competitor Fatigue
   Dr. Tadhg MacIntyre
12 Funded Research Opportunities in PESS
   PG Scholarships & Internships
14 Validation of an Optical Timing System to Measure the Reactive Strength Index
   Robin Healy (PESS PhD Student)
15 How Recreational Runners undertake Distance Running Events
   Michelle Norris (PESS PhD Student)

Outreach Activities

7 The Real Game of Thrones: Sport Psychology in PESS works with Powerchair Football National Team
   Dr. Mark Campbell
8 University of Limerick partners with Leading Charity in Adapted Physical Activity: SielBleu Ireland
   Jessica Eynaud
20 2014 BT and Young Scientist &Technology Exhibition Participants Visit PESS

Features

4 An Appreciation of Pat Duffy Liam Moggan (Coaching Ireland) P.J. Smyth (PESS Department)
11 Graduate Profile of Dr. Will McCormack

News

2 Head of Department Welcome
   Dr. Ann MacPhail
16 New Programme: Msc. in Sport, Exercise and Performance Psychology
19 Prof. Alan Donnelly receives a 2014 Irish Heart Foundation Research Bursary
20 PAHLS update
21 PESS Graduations 2014
21 PESS Graduate Appointments
22 PESS Staff, Student & Graduate Achievements
23 Publications
I first met Pat in Thomond 
College in Limerick a little 
shy of 40 years ago. Early in 
the first term of my third year 
notices appeared on the 
corridors of college. They 
posed a question about the 
presence or otherwise of an 
Athletics Club. They were 
followed by invitations. Those 
with an interest in Athletics 
were asked to attend a 
meeting in the lecture 
thatre. These notices were 
unsigned. 

For those of us who held, what we felt, were important 
positions within the then Athletics Club these notices created 
quite a stir. Of course we attended the meeting, full of youthful 
fire and curiosity. Shortly after the appointed starting time of 
the meeting, an until then silent, first year student went from 
sitting amongst us to stand and take a position at the top of 
the lecture theatre. He introduced himself. He had our full 
attention. That was the first time I met Pat Duffy. 

That day Pat challenged us to have a greater presence on 
Campus, to be a better club, to be more visible, inclusive, more 
helpful, more welcoming and to spread our wings to embrace 
all of the students in the College. You can imagine our 
reaction, us experienced grown-up second, third and fourth 
year students not just of PE but of life! 

Of course we listened to Pat that day. We listened not because 
we had to. We listened because what he said made sense. He 
spoke words that got clogged up in our minds. He described 
place that was better for all of us. And without knowing it 
then we went on to listen to and listen for Pat from that day onwards. 

Think for a moment of the type of character that could do 
that, the type of young man that could invite, introduce, 
set-up, challenge, inspire and lead others; a young first year 
student with that kind of confidence, togetherness and I’d 
have to add, courtesy. For that’s what Pat did that day and 
went on doing thereafter. 

He led others. He inspired others. He invited, introduced, 
challenged and led people so that they could do things and 
become better for themselves. 

Pat was a pioneer. He helped open new lines of thought, new 
activities, new methods, new technical models, new ways of 
doing things. Pat was the living description of the word pioneer. 

Unlike most of us who live our lives in a series of short stories 
that seldom connect or never manage to fully get finished, Pat 
has left an extraordinary print on many good things that 
impact on many of us every day. 

Let us remember that it was Pat who wrote the policy 
documents that steer our approach to all levels of sport in 
Ireland. It was Pat who introduced a new, effective way of 
coaching coaches, of teaching PE and of training people who 
work in the Health and Fitness industry. It was Pat who was 
responsible for a completely new way of supporting our 
international athletes. It was Pat who became one of the 
worlds’ leading influences on all that is good in sports coaching. 

Of course others were involved in these projects. Pat was first 
to say that and to acknowledge each and every one, by name, 
always and ever. I have purposely left out names because in 
his generosity to credit others the light did not always shine 
on Pat as it should have done. He did not always get the 
recognition he deserved. He was the master collaborator. I 
think of Pat often as like a character in a play; someone who 
stays in the shadows and leaves the spotlight to others. 

In the early days of National Coaching and Training Centre 
(NCTC), Pat invited many of the leading people in the world 
of Coach Education to Limerick. These impressive people were 
impressed with Pat. They shared the same language. They 
held a similar vision. They challenged each other from the 
same base. 

Pat was our home base; to see him, hear him, watch him 
conduct himself as he did, gave us belief. He filled us with 
confidence. He fuelled us with energy and passion and drive 
to make things happen. He helped make all those lucky to be 
around him, better for being around him. 

I think many of you will remember a time when Pat asked you 
to do something that frightened you. He had a knack of doing 
that. He’d ask you to do something, he’d leave you to sweat 
over it and he’d support you every step of the way irrespective 
of outcomes. Pat believed in people, he believed in process 
and he landed those beliefs right back on your lap. 

Many people are wired to see a problem to every solution. Pat 
was the opposite. Pat saw solutions. He thought of things we 
ever thought about. He thought of ways of making those 
things real. He was a visionary blessed with a vocabulary and 
delivery style that allowed us see the pictures he described.
Pat was a worker. He got his Masters. He got his PhD. Professor Patrick Duffy travelled far without ever using titles. Most times he travelled a road never travelled. He was persistent, humble, polite and fiercely loyal. Despite his busy schedule Pat could make time appear still. He gave you his full attention. We listened to him that first day in Thomond College as only we knew how. Then Pat demonstrated the art of active listening at levels we never knew existed.

While Pat travelled and was away from home for long periods he never forgot home. Family and place meant everything to him. I heard him many times in many places tell stories of Deirdre and his five children.

Pat loved life; he loved living; he loved scones with loads of butter and jam on them; he demolished ice-cream, he enjoyed the group Chicago and particularly their song ‘25 Or 6 To 4’, he simplified difficult concepts into neat boxes on flipchart paper, he loved gardening, he enjoyed all sports, he could talk knowledgeably about anything.

It is no exaggeration to say that Pat Duffy was one of the greatest Irishmen of our time.

PJ Smyth, Emeritus Lecturer in the Department of Physical Education and Sport Sciences knew Pat Duffy for many years and has taken the time to offer some words about Pat.

“I knew Pat since he was a student here beginning in 1976. He was so bright and confident and full of ideas with a great ability, even then as a young student, to see and articulate the practical applications of theoretical concepts that would be presented in lectures, books and papers. As has been noted by many, Pat had great vision. He had a great vision of how this campus could develop in relation to sport and exercise. In this last couple of years I used to meet him for chats from time to time. We talked about his work in the UK and around the world. He would often state how this work and the ideas he had and talked about all had their roots in the UL campus i.e. Thomond College, NCPE, Coaching Ireland, the PESS Department and the Sports Department. “It all started here” he would say. He had great hope and vision that the departments could work together to develop and facilitate participation in sport for purposes ranging from health and recreation to elite sport along with the much needed research. He talked about how good it all could be. Another facet of Pat was his positivity. He was an extremely encouraging person for everyone he met and for whatever the setbacks occurred. He always looked for solutions. Despite his huge work load Pat had time for everyone. He was great company and could engage in conversation on a variety of topics with all sorts of people.”

Some of Pat Duffy’s Achievements and Contributions to the Development of Physical Education, Coaching and Sport.

1980  BA Physical Education, Thomond College of Education  
1980-1982 Physical Education Teacher, St Declan’s, Cabra


1983 Masters in Physical Education from Springfield College, Massachusetts.

1984 Appointed Lecturer in Education, Thomond College of Education.

1984-1989 President of the Physical Education Association of Ireland. Revived an ailing association. Obtained funding from a number of government agencies and set up the PEAI’s headquarters Thomond College of Education with an administrator and secretary.

1988 Led the move to standardise and regulate the fitness industry with the establishment of the National Council for Exercise and Fitness (NCEF). The NCEF is now part of the Department of Physical Education and Sports Sciences with its programmes from certificate to degree level accredited by the University of Limerick.

1991 Appointed Head of Coach Education at the National Coaching and Training Centre (NCTC).

1993 – 2003 Director of National Coaching and Training Centre (NCTC)/Coaching Ireland: To roll out the best coaching education system possible in this country. Along with Giles Warrington he was also responsible for creating a much more transparent system of funding Ireland’s elite athletes by setting up and originally administering the national ‘carding’ scheme which gives athletes financial and medical support.


2000 Appointed Chief technical advisor to South African Sports Confederation and Olympic Committee (SASCOC). One of his most recent achievements was the completion of a blueprint for South Africa’s new integrated coaching system.

2005-2009 Chief Executive; Sports Coach UK. Led the development of the UK coaching framework.


2009 Appointed Professor of Sport Coaching at Leeds Metropolitan University.

2009-2014 Professor of Sports Coaching at Leeds Metropolitan University.

BACKGROUND
To address major societal challenges and enhance cooperation in research across Europe, the European Commission has initiated and facilitated ‘joint programming’, i.e. defining, developing and implementing a common strategic research agenda, based on a shared vision of how to address major societal challenges that no Member State is capable of resolving independently. The Determinants of Diet and Physical Activity (DEDIPAC) Knowledge Hub (KH) is the first action of the European JPI ‘A Healthy Diet for a Healthy Life’ and was launched in November 2012.

OBJECTIVE
The objective of the DEDIPAC KH is "to understand the determinants, at both the individual and group levels, regarding dietary, physical activity and sedentary behaviours using a broad multidisciplinary approach, including biological, ecological, psychological, sociological, economic and other socio-economic perspectives and their interrelationships, and to translate this knowledge into a more effective promotion of a healthy diet and physical activity."

CONSORTIUM
The DEDIPAC KH is a multidisciplinary consortium of scientists from 46 research centres supported by joint programming funds from 12 countries across Europe.

THEMATIC AREAS
The work in DEDIPAC is divided into three Thematic Areas (TAs):

- TA 1: Assessment and harmonisation of methods for future research, surveillance and monitoring, and evaluation of interventions and policies.
- TA 2: Determinants of dietary, physical activity and sedentary behaviours across the life course and in vulnerable groups.
- TA 3: Evaluation and benchmarking of public health and policy interventions aimed at improving dietary, physical activity and sedentary behaviours.

In the initial three years (2013 to 2016) the DEDIPAC KH will organise, develop, exchange, harmonize and share expertise, methods, measures, data and other infrastructure. This should further cross-European research and improve the broad multidisciplinary approach needed to study the interactions between multilevel determinants in influencing dietary, physical activity and sedentary behaviours.

Insights will be translated into more effective interventions and policies for promotion of healthier behaviours and more effective monitoring and evaluation of the impacts of such interventions.

IRELAND
There are five academic institutions in Ireland involved in the DEDIPAC knowledge hub: University of Limerick; Dublin City University, School of Health and Human Performance, University College Cork, Department of Epidemiology & Public Health, Trinity College Centre for Health Sciences, Discipline of Public Health and Primary Care and UCD School of Public Health, Physiotherapy and Population Science.

UNIVERSITY OF LIMERICK
In 2013 Prof Alan Donnelly and Dr. Ciarán MacDonncha were awarded €340,000 from the European Consortium.

Prof. Alan Donnelly is a partner in Thematic Area 1 of the (DEDIPAC KH) consortium. The focus of this thematic area is on assessment and harmonisation of methods in diet, physical activity and sedentary behaviours for future monitoring and evaluation of interventions. Alan is the deputy leader of work package 1.2, which focuses on the assessment and harmonisation of assessment of physical activity and sedentary behaviours.

Dr. Ciarán MacDonncha is a partner in Themeatic Area 2 of the DEDIPAC KH consortium. The focus of this area is on the determinants of diet, physical activity and sedentary behaviour across the life course and in vulnerable groups. Ciarán is the deputy leader of work package 2.2, focusing on the examination and identification of determinants of physical activity behaviour across the life course.

Dr. Kieran Dowd (post-doctoral researcher with the DEDIPAC KH in PESS) is working under the guidance of Prof Donnelly, and is responsible for performing Systematic Literature Reviews to identify state-of-the-art methods for the measurement of 1) physical activity and 2) sedentary behaviours in free-living environments across the life course. Kieran is also responsible for developing an open-access web-based toolbox for both subjective and objective measurement techniques.

Dr. Fiona Ling (post-doctoral researcher with the DEDIPAC KH in PESS) is working under the guidance of Dr MacDonncha as part of work package 2.2. Fiona is responsible for the explorative secondary data analysis of determinants of physical activity behaviour and for the development of a framework of determinants of physical activity behaviour.
The inaugural European Powerchair Football Nations Cup took place from July 17th - 20th in the Sports Arena at the University of Limerick. Prior to this major championship the Irish Powerchair Football team had a series of training camps here in UL. During this time sport psychology students and staff from PESS were lucky enough to have the opportunity to work with these talented athletes. Led by Dr. Mark Campbell and ably assisted by PESS students Ian Sherwin (PhD Candidate), Clodagh Butler (MSc Sports Performance and PESS PhD Student), Lisabeth Burke (PE) and Hannah McManus (Co-Op placement) the team delivered two tailored workshops on psychological skills training and mental preparation for performing your best when it matters most for the team.

Briefly, Powerchair football is one of the fastest growing disability sports in the world and allows people who are power wheelchair users to participate in the sport. Powerchair football came into existence in the late 1970s but has only been played in Ireland since 2003, where there are currently 6 clubs operating at the current time. Games are contested by teams of four players who, over the course of two 20 minute halves of action, push or strike an oversized football around a court, attempting to outscore their opponents in the same way as mainstream football. Players use powerchairs equipped with footguards to attack, defend, and spin-kick a 13-inch (330 mm) football in an attempt to score goals. 2009 saw the establishment of the Association for Irish Powerchair Football (AIPF) by the FAI and the sport nationally has grown from strength to strength in recent years, culminating in their participation in the inaugural European cup this summer.

Nick Harrison, head coach of the team contacted PESS before the Summer looking for some sport psychology expertise for his team. Specifically, being a home championship and with the anticipated very large home support, Nick was looking for ways for his team to deal effectively with the big day nerves and fully utilise the home support that would be there.

Additionally, the first game was against Switzerland and came with a twist. It was a winner takes all match, with the victor guaranteeing themselves a place in the world cup next year in Brazil. Therefore, the psychological demands and pressure on the team were immense! Accordingly, the two workshops dealt with practical psychological strategies and skills that the team could incorporate and use in their preparations. Such strategies and skills related to effective team communication, coping skills, enhancing concentration and pre-game and pre-shot routines. Both workshops were very interactive and practically-oriented and individual challenges and goals were worked through over the course of the two sessions and with some homework in between.

And the end result? Well, the team beat Switzerland 2-0 on the opening night of the event in a terrific performance that was exceptionally well supported with a very vocal home crowd cheering them on. This result was a major milestone for the team and now their preparations focus on their first world cup next year in Brazil. Additonally, the Irish team placed a highly regarded fourth in the European cup standings at the end of the week. France were crowned the eventual winners of the tournament beating England 5-0 in the final. Well done to the team and a particular mention goes out to the team captain Aoife McNicholl, herself a current second year Psychology student in DCU who led her team with gusto.
Siel Bleu is a charity dedicated to the physical, social and mental welfare of Ireland’s adult population and believes in the positive effects of exercise for everyone. Almost one year on from Siel Bleu’s partnership with the University of Limerick, Siel Bleu is now delivering exercise classes to over 60 adults in the Limerick community aged between 60 and 80 years old. The University of Limerick has contributed greatly to the initiation of this programme in two aspects. Firstly, venues for the exercise classes are located on campus (multi purpose gym in the Physical Education and Sport Sciences building and Kilmurry Village Hall, UL). Secondly, participants who come on board with Siel Bleu have the opportunity to become part of ongoing research under the ULBC study (University of Limerick Body Composition http://www.ul.ie/bodycompositionstudy) and receive a full body composition analysis by Dual X-Ray Absorptiometry (DEXA) and Bioelectrical Impedance (BIA). This assessment is a great opportunity for participants to receive accurate and useful information relating to their body composition and health status. This measurement has become part of discussion with the participant and their general practitioner (GP) on how they can improve their health status based on the results of their scan.

FEEDBACK FROM THE GROUND

Participants who became involved with the programme were asked for to provide feedback through a questionnaire. Eighty-one percent of participants surveyed report ‘improvements in mental well-being such as reduced stress, tiredness, mood changes and increased motivation’. In relation to the physical aspect of the classes, ninety per cent of participants describe improvements such as ‘increased strength, balance and flexibility’. The consensus among the participants was that ‘being with people my own age’ and ‘the atmosphere in the sessions’ brought them back to Siel Bleu classes each week.

BODY COMPOSITION

The average age of adults who received a body composition assessment was 67 years old, with a group BMI of 27.8 (kg.m²). Not all participants availed of the 12 week repeat scan. Fifteen participants completed the 12 week exercise programme in full and returned to the University for a repeat scan. The data suggests a group total mass loss (kg) of 9.5 kg over the course of the programme with an increase of lean tissue (muscle) mass of 33 per cent from baseline to repeat scan.

GREAT LIMERICK RUN 2014

On May 4th 2014, participants who were attending Siel Bleu classes on weekly basis and their trainer took part in the 6 mile event of the Great Limerick Run and completed the race in 1 hour and 46 minutes. To take part in this event and complete it in under 2 hours meant a lot to those who took part. The Siel Bleu trainer collected sponsorship for the event on behalf of Siel Bleu. As Siel Bleu is a non for profit organisation, donations and funding play a vital role in the long term sustainability of the company.

On behalf of Siel Bleu, Jessica would like to thank the University, particularly the PESS department for their involvement in the programme through the provision of venues, exercise equipment and access to gold standard method of body composition analysis.

www.sielbleu.ie
Teacher professional development (PD) has been at the forefront of educational change and reform discussions for the past decade (Darling-Hammond & Bransford, 2005). Central to this discussion is that effective PD involves meaningful topics identified by teachers, is socially constructed, and sustained over time (Darling-Hammond & Bransford, 2005).

Communities of Practice

Frequently, PD of this type exists in the form of communities of practice (CoP). More recently, researchers have begun to focus attention on teacher educator CoP as key players in improving the quality of teacher education and, by association, examining the role of teacher educator professional learning and development (Brody & Hader, 2011). These communities emphasize active practice, reflection, and engagement rather than abstract discussions (Darling-Hammond & McLaughlin, 2011; MacPhail, Patton, Parker, & Tannehill, 2014). The value of communities is their emphasis on interpersonal relationships and activities among members with relatively short cycles of practice and learning. The communities serve as opportunities for organizational improvement, professional development, innovation, and the enhancement of practice (Talbert & McLaughlin, 1994) and break traditional academic isolation. Regardless of context, school-based or higher education based, these groups share a passion for something they know, and through regular interaction, learn how to do it better.

The Research Retreat

Adhering to what is known about best practices for teacher professional development, and committing the department to developing a teaching and research team that would become a CoP, the first sport pedagogy faculty research retreat was held 29 – 31 May at Coolbawn Quay near Nenagh, Co. Tipperary. Ten sport pedagogy faculty – Ann MacPhail, Louise Masterson, Ursuala McCarthy, Jaimie McMullen, Brigitte Moody, Missy Parker, Ann Marie Ralph, Deborah Tannehill, Daniel Tindall, and Ann-Marie Young - wishing to increase their research capacities by learning from and with other, embarked on a three day retreat away from campus. The purpose of the retreat was to begin to establish a community of practice.

By forming a community of teacher educators within Sport Pedagogy a conduit for on-going dialogue, individual and group reflection, systematic action, and mutual respect, creating an environment that nurtures deep learning and thought fostering individual and collective research capacity is effectively created.

The retreat was grounded in work sessions focused on identifying individual research goals and needs and establishing group projects. The sharing of current research projects resulted in the setting of six month goals with supporting mechanisms for each participant. Discussion of collaborative group work prompted the submission of multiple evidenced-based proposals for the 2015 SHAPE (Society for Health and Physical Educators) Conference in Seattle, Washington. Moreover, in an effort to guide and focus future direction, initial strides were made in coalescing personal interests into overriding research themes for the group. These work sessions were punctuated with social activities allowing members to develop more enriched professional relationships. A second follow-up retreat is planned for some time in late autumn or early winter. The ultimate aim is for the community to advance knowledge, professional practice and policy in physical education, through high quality and innovative teaching (professional learning), research, and service to the university and the wider community.

References


Dr. Missy Parker is the Course Director for the Professional Master of Education in Physical Education. This programme is a full-time two-year initial teacher education to prepare graduates for a professional teaching qualification in physical education. Graduates will be skilled in designing instructionally aligned, evidence-based physical education programmes.

The course culminates with a demonstration of the: 1) ability to conduct applied research resulting in a research paper, and 2) achievement of Teaching Council professional expectations for teachers documented in a professional portfolio. Applicants must possess a level 8 honours degree (2.2 or above) recognised by the Teaching Council as providing all content, applied and theoretical, to teach physical education.

http://www.ul.ie/graduateschool/course/professional-master-education-physical-education
Human factors research demonstrates that driver inattention and fatigue may be a major cause of both crashes and fatalities in driver performance. However, researchers have largely overlooked competitive motor sport as a natural laboratory to study driver attention. In order to assess the role of fatigue on performance among World-class competitors, an exploratory study was conducted at the Abu Dhabi Desert Challenge in April, 2014. One of the world’s most prestigious international cross country rallies, the five-day event consists of driving in temperatures of up to 55°C, at speeds up to 180 kph across challenging terrain for several hours each day.

The incident rate is typically very high with up to 12 medivacs annually. “Safety in the Desert Challenge is our number one priority” according to Dr. Mohammed Ben Sulayem, chairman of the organising committee and a Vice-President of the FIA. Statistical comparisons with circuit racing in (e.g. Formula 1) show that the rate of serious injury was 12 times higher in the cross-country discipline of motorsport. Consequently, the goal of this research was to examine much closer than ever before how fatigue affects competitors contesting events of this nature. Fatigue typically reduces attention and vigilance which can impair decision-making, risk-management, anticipatory abilities and reaction time (RT). Twenty-seven competitors (n=7 bike category; n= 20 in car) from 10 countries participated in the study. Daily reaction time was measured prior to the start of each leg of the rally and self-reported sleep data were also recorded.

In addition, critical incident de-briefing was provided to assist with the psychological recovery of both competitors and medical personnel after a fatal incident during the event. The main findings were that on day one, two-thirds of competitors responses had been categorised as high reaction times and by day four, this had reduced to one-third. For some competitors their reaction times had doubled from 250 milliseconds to 500 milliseconds. Furthermore, of major concern was the fact that the quality of driver’s sleep halved across the four days event in which testing occurred. Other than lack of quality sleep, the inability of the competitors to maintain their response time may be attributable to other factors which include dehydration, concussion and local muscular fatigue. Consequently, among the recommendations of this pioneering study are specific amendments to existing regulations (e.g. weigh-in for competitors to enable monitoring of hydration). Furthermore, given that undiagnosed concussion may have occurred among the racers, pre-event baseline testing for concussion should be conducted.

A follow-up interdisciplinary study with experts in sports medicine, psychology and sports physiology is currently being designed. It will be a systematic season-long study to investigate potential contributors to a loss of reaction time (e.g. dehydration, concussion & fatigue). At a conference at the UAE University in Al Ain, the theoretical underpinnings of this study and the follow-up study were recently presented. The goal of this human performance study is to translate from theory at the academic level to implementation at a practical impact. This pioneering study has connected with stakeholders in the world of motor sport, academic institutions internationally and the competitors and teams. This study presents the road map in terms of safety which can become a winning formula for all, and may both help save lives and make driving safer for all.
Will McCormack recently graduated with a PhD from the University of Limerick which was titled ‘Milk Protein Supplementation and the Regulation of Lean Tissue Mass in Healthy 50 to 70 Year Old Women and Men’. He graduated with a first class Hons degree from Sport and Exercise Sciences in 2002. Will takes time out from his busy day to describe what it is like to work in both research and industry.

Who are you employed by?
Carbery Group, Ballineen, Co. Cork Ireland. Carbery are a major international food ingredients, flavours and cheese manufacturer headquartered in Cork, Ireland. Carbery ingredients are primarily based on whey; a highly bioavailable source of protein which has exceptional nutritional and functional properties. I also work as part of the Food for Health Ireland (FHI) research consortium (of which Carbery is a member). FHI unites world-class science and dairy industry know how in one Technology Centre aimed at developing, marketing and selling nutritional ingredients and functional ingredients to improve consumer’s health and wellness.

Can you comment on the industry experience?
It’s been fun so far. I’ve had great opportunities to travel. I have recently been to France, and will be in in Chicago and Las Vegas with Carbery in October 2014. Those are not necessarily opportunities I would have if I wasn’t working for industry. It can be challenging at times. Communication with sales and marketing has its moment, especially when they wish to make a product claim that doesn’t necessary stack up. Also, science is always slow. Delivering high quality science doesn’t happen overnight. That’s an issue with industry sometimes, they want it yesterday! What I’ve definitely benefited from is the opportunity to communicate the work that we do as part of FHI to those who don’t work in science or have a science background. There’s a skill to delivering information to someone at a level that they can understand and appreciate and is relevant to them.

Can you sum up your PhD Experience and offer some advice to current PhD students?
It was the best of times and worst of times all rolled into one. Don’t get too high when p < 0.05 and similarly don’t get too low when everything is going to pot. You will finish it. You’ll know who your friends are by the end of it too and they’ll be your friends for the rest of your life because if they can tolerate you while you’re writing up than you’ll never be able to alienate them!
For those interested in considering a PESS Food for Health, Sport Pedagogy, or Sport and Human Performance, the following text elaborates on the experiences of Clodagh Butler, BA, MSc, who was involved in a project that aimed to develop an online platform.

**Clodagh Butler, BA, MSc**

**Why did you apply for the Internship?**

After completing the MSc in Sports Performance, I was left with the oh so common thought of ‘what’s next?’ Knowing my interest in research I was advised by my supervisor, Dr. Tadhg MacIntyre to apply for the PESS summer internship and to work with him on a HRC seed funded project he was developing entitled ‘Mind matters in Elite Rugby Academies: An evaluation study of a resilience training programme for at risk elite-athlete’. To my delight I was accepted and I started the internship the first week of June 2014.

A major benefit of the internship was the interdisciplinary and multidisciplinary research activities of the project. What this meant for me was that I would not only be working with individuals within the PESS department but also a multidisciplinary team, with researches from other departments within UL (Kemmy Business School, School of Psychology) and organisations outside of UL (Institute of Child Education and Psychology Europe (ICEPE) and the Irish Rugby Union Player’s Association (IRUPA)).

The research team consisted of one sports psychologist, one psychologist, one work/organisational psychologist, three health psychologists, two MSc in Sports Performance students, one PE undergraduate student, three members from ICEPE, a number of facilitators from IRUPA and finally myself.

The context of the project (the development of an on-line resilience training programme) incorporated both my undergraduate and postgraduate studies in one project (Health Psychology and Sports Performance). Having already completed three dissertations, I was fairly competent in my ‘dissertation’ research requirements, but I needed to learn how to be innovative and learn the organisational structure of research and academia if I was to pursue a career in this domain. Fortunately, for me this is exactly what my internship ended up doing for me.

**What is the project?**

The aim of our research is to develop a bespoke intervention (Hope, optimism and resilience [HOR] programme) which is unique in its self as the online learning platform which will be easily accessible to athletes to promote positive mental-health, increase performance, positive lifestyle changes, team dynamics, coping strategies etc. Participants will monitor their well-being, mood and lifestyle patterns which will be useful as indicators of both peak performance and overtraining or staleness and mental health.

**Internship Duties:**

The core of the project was the development of an on-line resilience training programme for at risk elite-athlete. To my delight I was accepted and I started the internship the first week of June 2014.

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After the internship
As the internship was only for 8 weeks I am currently being funded through the seed funding to continue to work on the project. This extra time to work on the project is helping to fulfill my goal of understanding and developing innovation within research. Working alongside a multidisciplinary team has given me more experience and opportunities than ever expected. I am expanding my connections and developing working relationships with researchers, academia, sporting organisations and professionals. I am brainstorming on every level of the project; expanding ideas for development whether it be online content, workshops or measurements. When the project goes live and data collection takes place, my role will expand into the tutor role. I will be helping individuals by engaging with them in online group discussions, one-to-one information/help, questions and queries.

I am currently lecturing the ‘Psychology of Work’ autumn semester module based in the Kemmy Business School and shadowing/leading consultation work with athletes. All of which came off the back of doing the PESS internship and my work on the research project.

Jenny Higgins  BSc.

Why did you apply for internship?
After a research CO-OP in PESS in 2013 I applied for an internship during summer 2013 and really enjoyed this experience developing time-management, problem solving and leadership skills which greatly benefitted me during my FYP. With a view to pursuing further research following I applied for a further internship in 2014 to gain further experience in conducting re-search more independently. The internship was to assist Dr. Brian Carson with research to investigate the effect of a single bout of aerobic exercise on metabolic flexibility.

Internship Duties:
My principal role was to collect and analyse further data connected to my FYP with a view to publishing findings. My day to day roles included:
- Recruitment of participants, scheduling and preparation for testing
- Literature review – including the effect of exercise on substrate utilisation and insulin resistance, obesity, the effect of diet and physical activity on metabolic flexibility, methods to investigate metabolic flexibility
- Data collection – VO2max testing, body composition (DXA), exercise monitoring, implementation of dietary intervention, collection and analysis of respiratory (Douglas bag) and blood samples
- Data analysis and preparation for presentation
- Providing feedback on aerobic capacity and body composition to participants

Benefits of Internship:
The internship provided an opportunity to improve skills such as data analysis, interpretation of results and presentation of findings.
I also had a chance to transition to postgraduate life and to get into a routine that will hopefully make the next few years both productive and enjoyable.

Advice to students who are thinking of doing an internship:
- Have a plan for what you want to do – what area do you want to work in going forward – what sort of project will help you get there and what skills do you need to develop?
- Discuss your ideas with a potential supervisor early so you have a clear plan
- Ask questions, discuss ideas and listen to others – learn from people’s experience
It’s a great opportunity to learn and gain relevant experience if you’re interested in research and really beneficial when you have a plan for what you want to achieve from the outset.

Plans for the future
I have started a PhD in PESS (supervisors: Prof. Phil Jakeman and Dr. Brian Carson) looking at bone health in athletes and hopefully applying some of the experience in exercise and metabolism gained through the PESS internship. Findings from the internship have been accepted for poster presentation at the University Hospitals Limerick conference in October 2014.

Details of the PESS Internships
A maximum of three internships have been awarded over the past two years. Internships receive €200 a week over a maximum of eight weeks and the eight week internship can take place at any time throughout the June 2014 to May 2015 period.

Interested candidates are asked to approach a member of the PESS faculty to initiate a discussion on their interests in undertaking an internship in one of the four research areas listed above. The feasibility of the individual working with the faculty member to complete the internship application as well as the faculty member’s availability to oversee the internship should also be established.
Devices to assess vertical jumping have become increasingly popular in recent years for researchers and coaches alike. The countermovement jump, the squat jump and the drop jump are the three most commonly assessed jumps with various protocols devised to assess multiple aspects of performance. The drop jump is unique however as it allows coaches to assess an athlete’s reactive strength which is a vital component of elite performance.

The reactive strength index (RSI) is a measure of an individual’s ability to change from an eccentric contraction where the muscle lengthens to a concentric contraction where the muscle shortens. This has been considered a measure of explosiveness and has been widely studied because of its association with rapid sports movements such as sprinting. The reactive strength index can be examined when an athlete performs a drop jump i.e. where an individual drops from a set box height and immediately upon landing performs a maximal effort vertical jump. The reactive strength index is derived from two jump variables i.e. the time spent in contact with the ground (contact time) and the maximum height achieved from the subsequent jump (height jumped). Height jumped can be calculated once time spent in the air (flight time) is known using the equation:

$$\text{Height Jumped} = \frac{9.81 \times (\text{Flight Time}^2)}{8}$$

Once contact time and height jumped are known the reactive strength index can be calculated as follows:

$$\text{Reactive Strength Index} = \frac{\text{Height Jumped}}{\text{Contact Time}}$$

What is Reactive Strength Index?

Current Issues with Measurement

Various technologies have been used to examine drop jumps with a force platform system generally considered the gold standard for measuring both contact time and height jumped. Major disadvantages exist with the use of force platforms for coaches due to their high cost and lack of mobility as they are generally mounted within the floor of a laboratory. Alternative devices such as jumping mats and optical timing systems are better suited for field testing as they are mobile and relatively less expensive. Although research has established the validity of jumping mats for estimating height jumped large errors have been reported in the measurement of contact time and as a result an error in RSI calculation. Recent research has validated the Optojump system of photoelectric cells for estimating flight time and height jumped of countermovement jumps and squat jumps (Glatthorn et al., 2011). The validity of this device to assess contact time and RSI during drop jumps has yet to be established.

PESS Research Study

A research study was conducted to compare the Optojump system to the gold standard force platform for the measurement of height jumped, contact time and reactive strength index during a drop jump. Thirteen participants including seven males and six females performed drop jumps and single leg drop jumps which were assessed by a force platform and Optojump system concurrently. The results show that the Optojump system systematically overestimated contact time and underestimated flight time which led to an underestimation in the calculation of height jumped. RSI was found to be underestimated by approximately 7%. The difference in the measurements between devices can be easily explained by the physical set up of the Optojump system as the Optojump transmitter is positioned 0.3 cm from ground level i.e. the surface of the force plate. This results in the transmitter detecting the initiation of contact time before the foot is in contact with the ground and a delay in the detection of flight time until the individual’s feet pass the 0.3 cm high photoelectric cells. This is practically significant to coaches and researchers alike as the results illustrate that although both the Optojump and Force platform devices are highly reliable they cannot be used interchangeably and measures taken should not be compared directly.

The research has subsequently been presented at the 32nd International Society of Biomechanics in Sport (ISBS) held in Johnson City, Tennessee, USA.

Robin Healy graduated from UL with a B.Sc. in Sport and Exercise Sciences in 2013. His Ph.D. research under the supervision of Dr. Andrew Harrison and Dr. Ian Kenny evaluates the role of resistance training in the development of acceleration and maximal velocity of track sprinters. Funding for this research is supported by the Irish Research Council (IRC).
Earlier this year a study investigating the running patterns of recreational half-marathon runners followed 6 runners training for and completing the Great Limerick Run Half Marathon. The study involved runners wearing lightweight accelerometers strapped to their lower legs, bilaterally, tracking their running patterns and also filling out a weekly injury and training log for 12 weeks. Currently acceleration data are being analysed but what is clear from qualitative data is that how people undertake training programmes vary greatly. When looking at overall mileage none of the 6 participants matched or surpassed the mileage outlined by the programme over the 12 weeks (345 km). Whilst 2 of the 6 participants completed total running mileage of over 300 km, participant 6 completed less than 100 km whilst also having the second highest negative mood and stress score. Participant 6 also had the greatest variance in mileage from week-to-week and recorded the greatest amount of ache/pain occurrences, supporting research stating that large increases in week to week running volume may place you at higher risk of running related injury onset (RRI).

Also of interest was how subjects fared in completing the half marathon compared to their half marathon predicted time. When using the popular online McMillan running calculator 5 of the 6 participants came within ± 5 minutes of the McMillan calculated half marathon time, based off their best 10 km time. The only participant who varied greatly from their calculated predicted time (+ 29 minutes) was subject 6. These results seem to support the use of this online tool when following a training programme in the lead up to this type of event however it is clear that it only produces accurate results when the mileage is undertaken.

Bio mechanical data

While this qualitative information shows us how people undertake programmes the accelerometer data can give us insight into the biomechanical process of running training. Currently deriving information such as stride times, flight times and peak tibial acceleration we are interested in how these parameters evolve over the 12 week period and to see if this has any connection to performance and/or RRI on-set. Lastly, this study is now being recreated utilising 6 participants training for the Dublin City Marathon. Whilst we are still collecting data it is already clear that the marathon mileage places a far greater strain on runners bodies as RRI occurrences and pain/ache occurrences are already far greater than those seen during our first study. It will be of great interest for us to see if any of our accelerometer derived parameters can indicate why this may be. A summary of the data are presented in Figure 1.

Michelle Norris graduated from UL with a 1st Class Honours degree in Sport and Exercise Sciences in 2012. Her Ph.D. research under the supervision of Dr. Ross Anderson and Dr. Ian Kenny is a longitudinal examination of movement health indices via wearable sensing technology. The objective of this research is to establish if variability within a movement pattern can be linked to injury risk.
8th Physical Education, Physical Activity and Youth Sport (PEPAYS)-Ireland Forum 2014 at Waterford Institute of Technology, 5th-6th June 2014.

The ‘Active/Smarter Travel’ Forum was officially opened by Dr. Michael Harrison (WIT) and Prof. Mary O’Sullivan (UL) on Thursday evening and was well attended by an eager audience who had travelled from all around Ireland.

Dr. Sarahjane Belton (DCU) delivered an excellent and interesting presentation on ‘Ireland’s Report Card on Physical Activity in Children and Youth’, a multi-national collaborative study involving 15 different countries. Mr Paul Jarvis from StreetGames UK delivered a keynote presentation on ‘Using sport to change lives in disadvantaged areas’. Active travel was the focus on Friday morning with a keynote by Mr Tom Rogers (Dungarven Smarter Travel) on a case study of promoting active travel in Dungarven. In addition Dr. Barry Lambe, WIT, presented his research on ‘Testing the efficacy of Active Travel to increase physical activity: Lessons from Smarter Travel in the South-East’.

There were concurrent symposia on Active Schools/Active Communities and Developing Talent and Coach Education and a stand-alone symposium on Inclusion and Teaching, which afforded a host of researchers from nine different Institutes of Technology and Universities to present. The third keynote address, delivered by Dr. Catherine Woods (DCU) and Dr. Ann MacPhail (UL), provided an update on Irish physical activity and physical education policy and practice. Poster presentations and the launch of the Centre for Ageing Research and Development in Ireland (CARDI) report, ‘Stay active – the Physical Activity, Ageing and Health Study’ followed the final keynote. The Forum concluded with a lively interactive session on ‘Rethinking sponsorship in sport and health’.

The Forum was highly successful with an impressive number of attendees presenting a range of research. Dr. Niamh Murphy, Dr. Jean MacCardle and Dr. Aoife Lane and their team were excellent hosts. The PEPAYS-Ireland Co-Directors, Prof. Mary O’Sullivan and Dr. Deborah Tannehill, took the opportunity to organize a PEPAYS-Ireland members meeting on the Thursday afternoon before the opening which was well attended. The discussion allowed members to comment on how to best develop PEPAYS-Ireland through examining the mission statement and proposed strategic plan.

At the conclusion of the forum, the PEPAYS-Ireland Advisory Board were delighted to announce the appointment of two new Co-Directors of PEPAYS-Ireland: Dr. Ann MacPhail (University of Limerick – Ann.MacPhail@ul.ie) and Dr. Elaine Murtagh (Mary Immaculate College, Limerick – elaine.murtagh@mic.ul.ie). Ian Sherwin (Ian.Sherwin@ul.ie) is a PEPAYS-Ireland Scholar and provides administrative support to PEPAYS-Ireland.

The next PEPAYS-Ireland Forum will take place in Limerick in June 2015 and will be co-hosted by Mary Immaculate College and the University of Limerick. The Forum will mark the 10th anniversary of the founding of PEPAYS-Ireland.
The 2nd year Sport and Exercise Sciences class, as part of their ‘Coaching Science and Performance’ module this year organised the Jacinta O’Brien 10k race, an annual run in memory of Jacinta O’Brien, a former member of the teaching staff in the PESS Department. Jacinta passed away at peace in her sleep from the condition of SADs. This year marked the 10 year anniversary of her death.

Whilst remembering Jacinta, the race also generates much needed funds for charities. In the weeks leading up to the race, a launch day was held on the university campus which proved to be a huge success with lots of money raised through competitions like “Guess the amount of Bon-Bons”, selling cakes [baked by the students] and the offer of prizes such as a signed Munster jersey, gym membership in the UL ARENA and Elvery’s vouchers to name just some. The race was promoted through local radio stations and newspapers, a race website, facebook and twitter.

The race this year took place by the UL Arena on Sunday 6th April 2014 in glorious sunshine with 386 runners of various levels and abilities taking part. The route took in the spectacular UL campus including the Kemmy business buildings, Thomond Bridge, the Pavilion, Irish World Academy, the Medical School and Living Bridge before finishing on the running track. There were a number of prizes on the day. Bank of Ireland sponsored the 1st place male and female prizes (€100 each) and Lenmac sponsored the 2nd (€75) and 3rd (€50) place prizes in both categories. The Stables and Sports Bar in UL also provided team prizes.

Postgraduate students Cormac Powell and Hannah McCormack played a big part in the overall organisation of the race, chairing planning meetings with the students to ensure all the different groups worked together to put on a safe event whilst also on budget. A total of €5,000 was raised this year with €2,500 going to each of the two chosen charities, the Mater SADS (Sudden Adult Death Syndrome) and Donal Walsh-Live Life. Great credit is also due to this year’s race leaders Olwen Kennedy, Jacob Cairns and Shane Hassan. Well done to everyone concerned!

This year also saw Brianne O’Rourke, an Erasmus student offer free training sessions for those interested in training for the race. Sessions were run on Monday, Wednesday and Thursday evenings at 6.15pm on the outdoor running track. These proved to be very popular and well attended by runners of all abilities. More than 100 first year psychology students participated in the race this year, many of whom were coached by Brianne O’Rourke. Brianne’s work with the Psychology students drew wide praise from Prof. Orla Muldoon (Professor of Psychology) who commented that ‘as well as being proud of these students, I would like to extend my congratulations to these PESS and Psychology students and the staff for a job well done’.

A Report by Dr. Mark Lyons

From L-R: Claire Shanahan, Elizabeth Buckley, Megan Walsh, Conor McNamee, Cillian Treacy, Colm Canning, Sean O’Fogartaigh.

Winning Team of Aaron O’Brien, Michael Carmody and Peter Fennell being presented with their prize by Daniel Brophy.

Rachel Clancy (fastest female in a time of 39:02) being presented with her €100 first prize by Daniel Brophy. Michael Carmody (fastest male in a time of 31:34) being presented with his €100 first prize prize by Daniel Cunnane.
I had a bit of time to spare before the next session on my programme plan so I dropped into the “speaker-ready room” to upload my presentation. This had to be done 24hrs in advance of your scheduled slot. I took a stroll around the exhibition area, got chatting – it’s good to network – to a few people. Met Wendy Brown from Queensland, small world, she’s in the same university, same department as Eimear Enright formerly of the PESS Department, UL!

**PRESENTATION FORMAT**

There were 17 concurrent presentation sessions which started in the afternoon with mini-orals. Each session was chaired by one or two people, usually invited speakers who introduced each presenter and managed questions. There were also two volunteers (students from the hosting university) assisting the chair. One monitored the time, a yellow card indicated you had one minute left, a red card and you were overstepping your welcome! A very interesting day ended with the official opening ceremony.

**DAY 2 – DAY OF PRESENTATION**

Day 2 was different, not just because I was scheduled to present in the penultimate session but there were more people, the presentations were sharper, the questions more particular and searching. Needless to say this did nothing for my nerves! I took in one of the morning sessions then spent an hour fine tuning my presentation. I was surprised at the number of people I recognised and went along to see some of them present their work. I was really trying to no avail, to take my mind off my presentation so ended up going over it again. And again!

Eventually the session rolled around, I was the second of five presenters in the session. All seats filled and there were people standing. Didn’t really focus on the first presenter and then I was up! Managed to stay within the time limit and after answering the three questions from the floor I sat down, relieved it was over. The rest of the session was a blur but social media was active! Further networking took place that evening over dinner and a few beers to celebrate the debut!

**REMAINING DAYS OF CONFERENCE**

Day 3 was similar to the previous day but I was able to enjoy it more. I was surprised how different the final day (Day 4) was, where had everyone gone? There were no more than 30 people at any of the sessions I attended in the morning and viewed the city in the afternoon. I returned to the conference centre for the last session, closing ceremony and closing party which took place later that evening at the Science Museum in the Nemo Centre.

I’m grateful to the department for funding the trip. As this was my first academic conference I wanted to see it all from start to finish and I’m glad I did, it will help me plan for the next one!

- Plan your programme in advance.
- Use your free time to network.
- Be prepared for your presentation.
- Accept comments as helpful even if they appear otherwise!
- Follow up with everyone, it helps to develop your network.
- Learn something from every session.
- Ask a question, state your name and institution clearly and make sure everyone knows who you are.

Overall, a great experience.
Congratulations to Alexandra (Lexi) Cremona (Research Assistant in the PESS Department) who completed the gruelling Isklar Norseman Xtreme triathlon on August 2nd 2014. The triathlon is limited to 250 athletes with a male to female ratio of 85/15. The Xtreme triathlon starts with a 4 meter drop off a ferry into a fjord and athletes swim 3.8 km in temperatures between 13 and 15 degree celsius. The swim is followed by a mountainous bike route of 180 km, and ends with gruelling 42.2 km marathon 1,850 m above sea level. The total distance is 226 km with a total ascent of 5,000 m. Lexi finished 22nd out of 44 females in time of 17 hours.

The national charity’s newest research bursaries presented at the Royal College of Physicians on 16th April 2014, were particularly focused in the areas of hypertension, heart failure, childhood obesity, stroke prevention and atrial fibrillation. The national charity supports projects ranging from everyday health interventions like measuring the long term effects of workplace dietary interventions to the use of advanced technology and science to explore tissue engineering of heart valves. Professor Alan Donnelly, PESS Department, UL received an Irish Heart Foundation Research Bursary for the project: Sitting around all day doing nothing? The effects of sitting, standing and light activity on adiposity and cardiovascular disease risk in adolescents.

UL Ladies Footballers and Camogie Team

In March 2014, UL Ladies Footballers captured the O’Connor Cup for the first time since 2004 after a final victory over Queens University Belfast. Final score UL 3-7 to QUB 1-9. Physical Education and Sport Sciences students on the team included Julia White, Kate Keaney, Lorraine Scanlon, Jennifer Grant, Roisin Leonard, Laura O’Sullivan, Aine Tighe, Naimh O’Dea, Rachael Flynn, Hillary Griffin, Aoife Hyland, Maire Condon, Dara Walsh, Aine Mannion, Elaine Murphy, Anna Galvin and Amy Hopkins. The team management included Dr DJ Collins (Senior technical Officer- PESS Department), and Dave Diggins (PhD, PESS Department).

In February 2014, UL Ladies Camogie Team achieved their dreams after overcoming a resilient performance from defending champions WIT in the Ashbourne Cup Final. Final score was UL 0-12 to WIT 1-08. PESS students included: Laura McMahon, Aoife McGrath, Aideen Hogg, Aileen Sheehan, Catriona Hennessy, Ellen Horgan, Grainne Egan, Katie Healy, Lisa Bolger, Muireann Creamer, Patrice Diggin, Rebecca Murphy, Sara Murphy, and Sarah Dunphy.

Dr. Drew Harrison: 2014 Geoffrey Dyson Award Recipient

Congratulations Dr Drew Harrison for receiving in July the 2014 Geoffrey Dyson Award from the International Society of Biomechanics in Sports (ISBS). The Geoffrey Dyson Award of the International Society of Biomechanics in Sports recognises sport scientists who, throughout their professional careers, bridge the gap between biomechanics research and practice in sport.

It is the most prestigious award of ISBS because it is a recognition of individuals who embody and carry out the mission of the Society. Dr Harrison delivered his keynote address on joint stiffness and application to sprinting and jumping performance.

[1] Dr. Drew Harrison (ISBS Past President) receiving the 2014 Geoffrey Dyson Award from the ISBS President, Prof. Joseph Hamill. [2] Dr. Drew Harrison with some of the past and present PhD students he has supervised who presented their research at the ISBS 2014 conference. (L-R) Robin Healy, Dr. Sarah Clarke (Leeds Metropolitan University), Dr. Laura-Anne Furlong (Loughborough University), Róisín Howard.
On May 23rd the department of Physical Education and Sport Sciences department hosted an event for schools that presented sport science related projects at the 2014 BT Young Scientist & Technology Exhibition, held at the RDS Dublin. Students from 11 schools attended the event, and all students were category award recipients. The secondary students presented their projects to PESS faculty and staff and other students and teachers attending the event. Presenting on the day included the Runner Up Group from the 2014 BT Young Scientist & Technology Exhibition, Conor Gillardy (15), Evan Heneghan (16) and Calum Kyne (16) from St. Gerald’s College, Castlebar, Mayo in May 2014. Their project was titled “Gumshield communication device for managers and players”. The students developed a physical prototype for this project and continue to work on the design of the product.

After the presentations, students had the opportunity to attend two workshops in the areas of either exercise physiology, exercise psychology or sport biomechanics after the student presentations. Guest speakers also presented to the secondary students on the role sport and exercise science plays in their professions today. Guest speakers: Dr. Ian Kenny (PESS), Caroline MacManus (Irish Institute of Sport), Dr. Mark Campbell (PESS), and Feargal O’Callaghan (Munster Rugby).

The PAHLS initiative has been supported to date by PESS, UL Sport and Campus Life Services. The recent appointment of Gary Ryan as the PAHLS Project Manager is a significant development in raising the profile of the initiative. Gary is currently spending a significant amount of time meeting with those interested in contributing to the PAHLS initiative as well as considering the establishment of a PAHLS Advisory Group that will support the direction of the initiative. If you are interested in hearing more about the PAHLS initiative Gary can be contacted at gary.ryan@ul.ie or 061234980.

Congratulations to Kris Beattie who was awarded the prize of best paper presented at the NSCA National Strength and Conditioning Association 2014 International Conference, held in Murcia Spain in April 2014. The paper was entitled The Relationship between Neuromuscular Force-Velocity Characteristics and Performance Indicators in Competitive Distance Runners. Kris’ PhD is nearing completion of the first of two longitudinal studies on ‘The Effect of Strength Training on Performance in Competitive Endurance Sports’ and is supervised by Dr. Ian Kenny, Dr. Mark Lyons and Dr. Brian Carson.
The PESS Department is one of the most sought after departments at UL for incoming ERASMUS, Study Abroad and International Exchange students!

During the Autumn 2014 semester, PESS has welcomed 62 incoming ERASMUS, Study Abroad and International Exchange student module registrations. Students studying in PESS this semester come from France, the United States, Brazil, and Canada - to name a few.

This semester also sees nine year three Physical Education students on exchange to the University of Michigan, California State University Long Beach, Slippery Rock University Pennsylvania, and Illinois State.

PESS GRADUATIONS 2014

1. Dr Catherine Norton, Dr. Will McCormack and Dr. Clodagh Toomey.
2. Lisa Bolger BSc SES 1st place in EHS faculty and Dr. Ann MacPhail.
3. Brendan O’Keefe and James McAssey, Joint Bsc PE medal winners 1st UL Interfaculty.
5. Megan McCarthy BSc PE School Placement medal winner.
6. Dr. Brian Carson and Eadaoin Moore, BSc PE.
7. Dr. Laura-Anne Furlong, Prof. Mary O’Sullivan, and Dr. Daniel Tindall.
August 2014 Graduations:
- Lisa Bolger, Sport and Exercise Sciences graduate achieved the award of top student QCA in the Education & Health Sciences faculty. SES graduate Lisa Bolger (SES Graduate) was shortlisted and commended in the 2014 International Undergraduate Awards for her final year project work.
- Brendan O’Keefe and James McAssey Bsc PE joint medal winners, 1st interfaculty.
- Kathleen Martin who received the Dugdale medal for highest QCA for Professional Diploma, Physical Education.
- Megan McCarthy BSc PE School Placement winner at graduation in August 2014.

Congratulations to current PESS students who fared brilliantly in this year’s GAA championship season.

2014 All Ireland Winners
Kerry Senior Football Team: Shane O’Callaghan.
Kerry Minor Team: Shane Ryan.
Kilkenny Minor Hurlers: Alan Murphy and Ronan Corcoran.
Cork Senior Camogie All Ireland Winners: Julia White.
Limerick Intermediate Camogie All Ireland: Niamh Ryan, Muireann Creamer.

2014 Defeated All Ireland Finalists
Tipperary Senior Hurling Panel: Jason Forde, Bill Maher.
Donegal Senior Football: Karl Lacey, Michael Boyle.
Wexford U21 (Captain): Shane O’Gorman.
Limerick Minor Hurlers: Tom Morrissey, Sean Finn, Eoghan Costello.

Congratulations to the PESS students who were part of the ladies and mens UL teams that won the Fresher’s GAA All Ireland competitions in October 2014.

Congratulations to PESS graduates for their successes in this year’s GAA championship season:

2014 All Ireland Winners
Kerry Senior Hurling Panel: Michael Fennelly.
Kerry Senior Football Team: Cian O’Neill (Traenálaí), Fionn Fitzgerald (Captain), James O’Donoghue.
Cork Senior Ladies Football All Ireland Winners: Valerie Mulcahy, Geraldine O’Flynn, Angela Walsh, Brid Stack.
Wexford Ladies Football All Ireland Winners: Fiona Rochford.
Cork Senior Camogie All Ireland Winners: Jennifer O’Leary, Angela Walsh, Maria Walsh, Amanda O’Regan, Sile Burns.
Limerick Intermediate Camogie All Ireland: Sile Moynihan.

2014 Defeated All Ireland Finalists
Tipperary Senior Hurling Panel: Paddy Stapleton.

Congratulations also to PESS faculty and staff who were involved as player management in GAA championship season - Gary Ryan (Tipperary hurling senior panel strength and conditioning), Dr Mark Lyons (Limerick hurling senior panel strength & conditioning) and Ed Coughlan (Mayo football senior panel strength & conditioning).

Congratulations to Eanna Madden (3rd year BSc SES Student) won the national 200 m title at Glo-Health National Athletics Championships in July 2014.

Noel Brick, PESS PhD candidate at UL won the Postgraduate Innovation in research award at the 36th Annual Congress of Psychology Students in Ireland 2014 held at DCU on April 12th. Noel’s presentation was entitled Attentional focus in endurance activity: New paradigms and future directions. Noel Brick is part of the first cohort of the Bsc. Sport and Exercise Sciences students who graduated from UL in 1997.

Dr. PJ Smyth (Emeritus Lecturer) delivered a public lecture at UCC on “Fundamental Movement Skills in Physical Activity and Sport: Some Concepts, Facts and Myths” and a seminar presentation on Fundamental Motor Skills: Importance for an active life, their development and how we can assist to Chartered Physiotherapists in Paediatrics (CPP) Mid West Region, St Gabriel’s Centre, on 24th April, 2014.

Congratulations to Clodagh Toomey, PhD graduate from PESS who was a team member of the TAG Rugby team who became All Ireland Mixed Open Regional Champions in June 2014.

Congratulations to Lynne Algar who has been appointed by Triathlon Ireland as a Performance Triathlon Coach.

Lynne also completed the OCC (Orsières - Champex - Chamonix) event at the Ultra Marathon Mount Blanc with Ross McLynn (SES Graduate 2013 and Triathlon Ireland Regional Club and Coach Development Officer). Lynne finished in a time of 9:34:41, 56th finisher out of 274 athletes.

Congratulations to Prof. Phil Jakeman and Dr. Mark Campbell for who are partnering with the company Wyldsson to investigate the impact of specialised nutrition for golfers. The study is being funded as part of the Enterprise Ireland Innovation Voucher Scheme.

Congratulations to Drs. Deborah Tannehill, Ann MacPhail, Melissa Parker, Mark Lyons and Prof Mary O’Sullivan who were recognised with other EHS staff at the EHS Book Author Showcase in May 2014.
Congratulations to Dr. Tadhg MacIntyre and Dr. Mark Campbell who were awarded a €6,000 Irish Research Council (IRC) New Foundations grant for their grant application “Motor Cognition: New Paradigms and Novel Applications”.

The research will investigate cognitive processes underlying action using neural imaging and other methods with expert sport performers. The aim of the collaborative study is two-fold. The research group will attempt pioneering research to investigate the degree to which action simulation is grounded in multi-sensory experiences for novel and acquired motor skills. In addition, the group will apply innovative methodologies (e.g., eye-tracking) to measure action simulation for sports skills.

Congratulations to Dr. Missy Parker and PESS visiting scholar Dr. Kevin Patton who were recipients of the Journal of Teaching Physical Education Metzler-Freedman Exemplary Paper Award for their article “Meaningful Learning in Professional Development: Teaching Without Telling.” The article was nominated and selected among those published in the 2013 volume of JTPE based on its significance, the quality of methods and writing, and its potential to impact the field of Physical Education Pedagogy. The award was presented during the 2014 JTPE Editorial Board meeting at the AERA convention at Philadelphia, Pennsylvania, on April 5th 2014.

In June 2014, Dr. Brian Carson presented his research on metabolic flexibility and its adaptations to exercise at the ACSM annual meeting in Orlando, Florida. This is an ongoing collaborative project with researchers at Central Michigan University whereby Dr Carson is developing a novel methodology for the measurement of metabolism and investigating metabolic responses to nutrient and physical activity interventions. This presentation also resulted in the publication of the abstract in the journal of Medicine & Science in Sports & Exercise (ISI Impact Factor 4.106).

**DATES FOR YOUR DIARY**

- Winter Graduations Mon 19th-Wed 21st Jan 2015
- Registration opens for ICAMPAM see www.ismpb.org
- All-Ireland Postgraduate Conference in Sport Sciences and Physical Education (date TBC). Contact Mark.Lyons@ul.ie for further information.

**PESS PUBLICATIONS (FEBRUARY - OCTOBER 2014)**

**Book Chapters**


**Peer Reviewed Papers (ISI Indexed)**


Peer Reviewer Journal Paper (Non ISI Indexed)


Conference Proceedings


41. Kenny, I.C., Madden, D., Downey, J., Murray P., Campbell J. and Breen, S. (2013) Biomechanical modelling of leg movement following knee surgery, Accepted for presentation at the 2013 University Hospital Limerick Inaugural Research Symposium, 18th October 2013, Limerick, Ireland.


Reports
